

FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Fairway Methanol LLC

AUTHORIZING THE OPERATION OF
Clear Lake Plant
Clear Lake Plant Methanol Unit
Industrial Organic Chemicals

LOCATED AT
Harris County, Texas
Latitude 29° 37' 17" Longitude 95° 3' 50"
Regulated Entity Number: RN100227016

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: 03678 Issuance Date: _____

For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:
 - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
 - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
 - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

- D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
- E. Emission units subject to 40 CFR Part 63, Subpart F as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.110 which incorporates the 40 CFR Part 63 Subpart by reference.
- F. Emission units subject to 40 CFR Part 63, Subpart G as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.120 which incorporates the 40 CFR Part 63 Subpart by reference.
- G. Emission units subject to 40 CFR Part 63, Subpart H as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.130 which incorporates the 40 CFR Part 63 Subpart by reference.
- H. Emission units subject to 40 CFR Part 63, Subpart ZZZZ as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.1090 which incorporates the 40 CFR Part 63 Subpart by reference.
- I. Emission units subject to 40 CFR Part 63, Subpart DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, §113.1130 which incorporates the 40 CFR Part 63 Subpart by reference.
- J. For the purpose of generating emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 1 (Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 101.302 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.303 (relating to Emission Reduction Credit Generation Certification)
 - (iii) Title 30 TAC § 101.304 (relating to Mobile Emission Reduction Credit Generation and Certification)
 - (iv) Title 30 TAC § 101.309 (relating to Emission Credit Banking and Trading)
 - (v) The terms and conditions by which the emission limits are established to generate the reduction credit are applicable requirements of this permit
- K. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 3 (Mass Emission Cap and Trade Program) Requirements:
 - (i) Title 30 TAC § 101.352 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.353 (relating to Allocation of Allowances)
 - (iii) Title 30 TAC § 101.354 (relating to Allowance Deductions)

- (iv) Title 30 TAC § 101.356 (relating to Allowance Banking and Trading)
 - (v) Title 30 TAC § 101.358 (relating to Emission Monitoring and Compliance Demonstration)
 - (vi) Title 30 TAC § 101.359 (relating to Reporting)
 - (vii) Title 30 TAC § 101.360 (relating to Level of Activity Certification)
 - (viii) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
- L. For the purpose of generating discrete emission reduction credits through 30 TAC Chapter 101, Subchapter H, Division 4 (Discrete Emission Credit Banking and Trading), the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 101.372 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.373 (relating to Discrete Emission Reduction Credit Generation and Certification)
 - (iii) Title 30 TAC § 101.374 (relating to Mobile Discrete Emission Reduction Credit Generation and Certification)
 - (iv) Title 30 TAC § 101.378 (relating to Discrete Emission Credit Banking and Trading)
 - (v) The terms and conditions by which the emission limits are established to generate the discrete reduction credit are applicable requirements of this permit
- M. The permit holder shall comply with the following 30 TAC Chapter 101, Subchapter H, Division 6 (Highly Reactive Volatile Organic Compound Emissions Cap and Trade Program) requirements:
- (i) Title 30 TAC § 101.393 (relating to General Provisions)
 - (ii) Title 30 TAC § 101.394 (relating to Allocation of Allowances)
 - (iii) Title 30 TAC § 101.396 (relating to Allowance Deductions)
 - (iv) Title 30 TAC § 101.399 (relating to Allowance Banking and Trading)
 - (v) Title 30 TAC § 101.400 (relating to Reporting)
 - (vi) The terms and conditions by which the emission limits are established to meet or exceed the cap are applicable requirements of this permit
2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
- A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

- B. Title 30 TAC § 101.3 (relating to Circumvention)
 - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
 - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
 - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
 - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
 - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
 - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
 - I. Title 30 TAC § 101.222 (relating to Demonstrations)
 - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
- A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
 - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
 - (ii) Title 30 TAC § 111.111(a)(1)(E)
 - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
 - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

- (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
- (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
 - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
 - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to

determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.
- B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- C. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- D. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
 - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
 - (ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)
 - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. For storage vessels maintaining working pressure as specified in 30 TAC Chapter 115, Subchapter B, Division 1: Storage of Volatile Organic Compounds, the permit holder shall comply with the requirements of 30 TAC § 115.112(e)(1).
- 5. For industrial wastewater specified in 30 TAC Chapter 115, Subchapter B, the permit holder shall comply with the following requirements for wastewater drains, junction boxes, lift stations and weirs:
 - A. Title 30 TAC § 115.142 (relating to Control Requirements)
 - B. Title 30 TAC § 115.142(1)(A) - (D) (relating to Control Requirements)
 - C. Title 30 TAC § 115.142(1)(E) and (F) (relating to Control Requirements)

- D. Title 30 TAC § 115.145 (relating to Approved Test Methods)
 - E. Title 30 TAC § 115.146 (relating to Recordkeeping Requirements)
 - F. Title 30 TAC § 115.147(2) (relating to Exemptions), for streams with an annual VOC loading of 10 megagrams (11.03 tons) or less
 - G. Title 30 TAC § 115.148 (relating to Determination of Wastewater Characteristics)
6. The permit holder shall comply with the following requirements of 30 TAC Chapter 115, Subchapter F, Division 3, Degassing of Storage Tanks, Transport Vessels and Marine Vessels:
- A. For degassing of stationary VOC storage tanks, the permit holder shall comply with the following requirements:
 - (i) Title 30 TAC § 115.541(a) - (c) (relating to Emission Specifications)
 - (ii) Title 30 TAC § 115.541(f) (relating to Emission Specifications), for floating roof storage tanks
 - (iii) Title 30 TAC § 115.542(a) and (a)(1), (a)(2), (a)(3) or (a)(4) (relating to Control Requirements). Where the requirements of 30 TAC Chapter 115, Subchapter F contain multiple compliance options, the permit holder shall keep records of when each compliance option was used.
 - (iv) Title 30 TAC § 115.542(b) - (d), (relating to Control Requirements)
 - (v) Title 30 TAC § 115.543 (relating to Alternate Control Requirements)
 - (vi) Title 30 TAC § 115.544(a)(1) and (a)(2) (relating to Inspection, Monitoring, and Testing Requirements), for inspections
 - (vii) Title 30 TAC § 115.544(b) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring
 - (viii) Title 30 TAC § 115.544(b)(1) and (b)(2) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring of control devices
 - (ix) Title 30 TAC § 115.544(b)(2)(A) - (J) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring (as appropriate to the control device)
 - (x) Title 30 TAC § 115.544(b)(3), (b)(4) and (b)(6) (relating to Inspection, Monitoring, and Testing Requirements), for VOC concentration or lower explosive limit threshold monitoring
 - (xi) Title 30 TAC § 115.544(c), and (c)(1) - (c)(3) (relating to Inspection, Monitoring, and Testing Requirements), for testing of control devices used to comply with 30 TAC § 115.542(a)(1)
 - (xii) Title 30 TAC § 115.545(1) - (7), (9) - (11) and (13) (relating to Approved Test Methods)

- (xiii) Title 30 TAC § 115.546(a), (a)(1) and (a)(3) (relating to Recordkeeping and Notification Requirements), for recordkeeping
 - (xiv) Title 30 TAC § 115.546(a)(2) and (a)(2)(A) - (J) (relating to Recordkeeping and Notification Requirements), for recordkeeping (as appropriate to the control device)
 - (xv) Title 30 TAC § 115.546(a)(4) (relating to Recordkeeping and Notification Requirements), for recordkeeping of testing of control devices used to comply with 30 TAC § 115.542(a)(1)
 - (xvi) Title 30 TAC § 115.546(b) (relating to Recordkeeping and Notification Requirements), for notification
 - (xvii) Title 30 TAC § 115.547(4) (relating to Exemptions)
- B. For the degassing of all transport vessels with a nominal capacity of 8,000 gallons or more, the permit holder shall comply with the following requirements:
- (i) Title 30 TAC § 115.541(a) - (c) and (d) (relating to Emission Specifications)
 - (ii) Title 30 TAC § 115.542(a) and (a)(1), (a)(2), (a)(3) or (a)(4) (relating to Control Requirements). Where the requirements of 30 TAC Chapter 115, Subchapter F contain multiple compliance options, the permit holder shall keep records of when each compliance option was used.
 - (iii) Title 30 TAC § 115.542(b), (c) and (e) (relating to Control Requirements)
 - (iv) Title 30 TAC § 115.543 (relating to Alternate Control Requirements)
 - (v) Title 30 TAC § 115.544(a)(1) and (a)(2) (relating to Inspection, Monitoring, and Testing Requirements), for inspections
 - (vi) Title 30 TAC § 115.544(b) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring
 - (vii) Title 30 TAC § 115.544(b)(1) and (b)(2) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring of control devices
 - (viii) Title 30 TAC § 115.544(b)(2)(A) - (J) (relating to Inspection, Monitoring, and Testing Requirements), for monitoring (as appropriate to the control device)
 - (ix) Title 30 TAC § 115.544(b)(3), (b)(4) and (b)(6) (relating to Inspection, Monitoring, and Testing Requirements), for VOC concentration or lower explosive limit threshold monitoring
 - (x) Title 30 TAC § 115.544(c), and (c)(1) - (c)(3) (relating to Inspection, Monitoring, and Testing Requirements), for testing of control devices used to comply with 30 TAC § 115.542(a)(1)
 - (xi) Title 30 TAC § 115.545(1) - (11) and (13) (relating to Approved Test Methods)

- (xii) Title 30 TAC § 115.546(a), (a)(1) and (a)(3) (relating to Recordkeeping and Notification Requirements), for recordkeeping
 - (xiii) Title 30 TAC § 115.546(a)(2) and (a)(2)(A) - (J) (relating to Recordkeeping and Notification Requirements), for recordkeeping (as appropriate to the control device)
 - (xiv) Title 30 TAC § 115.546(a)(4) (relating to Recordkeeping and Notification Requirements), for recordkeeping of testing of control devices used to comply with 30 TAC § 115.542(a)(1)
 - (xv) Title 30 TAC § 115.546(b) (relating to Recordkeeping and Notification Requirements), for notification
7. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
 - B. Title 40 CFR § 60.8 (relating to Performance Tests)
 - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
 - D. Title 40 CFR § 60.12 (relating to Circumvention)
 - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
 - F. Title 40 CFR § 60.14 (relating to Modification)
 - G. Title 40 CFR § 60.15 (relating to Reconstruction)
 - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
8. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 61.05 (relating to Prohibited Activities)
 - B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)
 - C. Title 40 CFR § 61.09 (relating to Notification of Start-up)
 - D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)
 - E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)
 - F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)
 - G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)

- H. Title 40 CFR § 61.15 (relating to Modification)
 - I. Title 40 CFR § 61.19 (relating to Circumvention)
9. For facilities where total annual benzene quantity from waste is less than 1 megagram per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(5)(i) - (ii), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions), for calculation procedures
 - B. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)
 - C. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
 - D. Title 40 CFR § 61.357(a), and (b) (relating to Reporting Requirements)
10. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
11. For the chemical manufacturing process specified in 40 CFR Part 63, Subpart F, the permit holder shall comply with 40 CFR § 63.103(a) (relating to General Compliance, Reporting, and Recordkeeping Provisions) (Title 30 TAC Chapter 113, Subchapter C, § 113.110 incorporated by reference).
12. For the chemical manufacturing facilities with a 40 CFR Part 63, Subpart G Group 2 wastewater stream, the permit holder shall comply with (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
- A. Title 40 CFR § 63.132(b), (b)(1), (b)(1)(i), (b)(2), and (b)(2)(i) (relating to Process Wastewater Provisions - General)
 - B. Title 40 CFR § 63.146(b)(1) (relating to Process Wastewater Provisions - Reporting)
 - C. Title 40 CFR § 63.147(b)(8) (relating to Process Wastewater Provisions - Recordkeeping)
13. For the chemical manufacturing facilities subject to leak detection requirements in 40 CFR Part 63, Subpart G, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
- A. General Leak Detection Requirements:
 - (i) Title 40 CFR § 63.148(d)(1) - (3), and (e) (relating to Leak Inspection Provisions)
 - (ii) Title 40 CFR § 63.148(c), (g), (g)(2), (h), and (h)(2) (relating to Leak Inspection Provisions), for monitoring and testing requirements

- (iii) Title 40 CFR §§ 63.148(g)(2), (h)(2), (i)(1) - (2), (i)(4)(i) - (viii), (i)(5), and 63.152(a)(1) - (5), for recordkeeping requirements
 - (iv) Title 40 CFR §§ 63.148(j), 63.151(a)(6)(i) - (iii), (b)(1) - (2), (j)(1) - (3), 63.152(a)(1) - (5), (b), (b)(1)(i) - (ii), and (b)(4), for reporting requirements
 - B. For closed vent system or vapor collection systems constructed of hard piping:
 - (i) Title 40 CFR § 63.148(b)(1)(ii) (relating to Leak Inspection Provisions), for monitoring and testing requirements
 - (ii) Title 40 CFR § 63.148(i)(6) (relating to Leak Inspection Provisions), for recordkeeping requirements
 - C. For facilities operating flow indicators:
 - (i) Title 40 CFR § 63.148(f)(1) (relating to Leak Inspection Provisions), for monitoring and testing requirements
 - (ii) Title 40 CFR § 63.148(f)(1), (i)(3)(i) (relating to Leak Inspection Provisions), for recordkeeping requirements
 - (iii) Title 40 CFR § 63.148(j)(2) (relating to Leak Inspection Provisions), for reporting requirements
 - D. For facilities not operating flow indicators:
 - (i) Title 40 CFR § 63.148(f)(2) (relating to Leak Inspection Provisions), for monitoring and testing requirements
 - (ii) Title 40 CFR § 63.148(i)(3)(ii) (relating to Leak Inspection Provisions), for recordkeeping requirements
 - (iii) Title 40 CFR § 63.148(j)(3) (relating to Leak Inspection Provisions), for reporting requirements
- 14. For the chemical manufacturing facilities subject to wastewater operations requirements in 40 CFR Part 63, Subpart G, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
 - A. Title 40 CFR § 63.135(a) - (f) (relating to Process Wastewater Provisions - Containers)
 - B. Title 40 CFR § 63.136(a) (relating to Process Wastewater Provisions - Individual Drain Systems)
 - C. Title 40 CFR § 63.136(b) - (d) (relating to Process Wastewater Provisions - Individual Drain Systems)
 - D. Title 40 CFR § 63.136(e) - (g) (relating to Process Wastewater Provisions - Individual Drain Systems)

15. For the chemical manufacturing facilities subject to requirements of certain liquid streams in 40 CFR Part 63, Subpart G, the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.120 incorporated by reference):
 - A. Title 40 CFR § 63.149(a), for control requirements
 - B. Title 40 CFR § 63.152(a)(1) - (5) (relating to General Reporting and Continuous Records)
 - C. Title 40 CFR §§ 63.151(a)(6)(i) - (v), (b)(1) - (2), (j)(1) - (3), 63.152(a)(1) - (5), (b), (b)(1)(i) - (ii), (b)(4) (relating to Initial Notification)
16. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

Additional Monitoring Requirements

17. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:
 - A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).
 - B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).
 - C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).
 - D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

- E. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.
- 18. The permit holder shall comply with the periodic monitoring requirements as specified in the attached “Periodic Monitoring Summary” upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the “Periodic Monitoring Summary,” for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

New Source Review Authorization Requirements

- 19. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
 - A. Are incorporated by reference into this permit as applicable requirements
 - B. Shall be located with this operating permit
 - C. Are not eligible for a permit shield
- 20. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
- 21. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit’s compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

22. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
23. The permit holder shall adhere to the provisions in the Compliance Schedule attachment of this permit and submit certified progress reports consistent with the schedule established under 30 TAC § 122.132(e)(4)(C) and including the information specified in 30 TAC § 122.142(e)(2). Those emission units listed in the Compliance Schedule attachment shall adhere with the requirements in the Compliance Schedule attachment until operating fully in compliance with the applicable requirements.
24. Permit holder shall comply with the following 30 TAC Chapter 117 requirements:
 - A. The permit holder shall comply with the compliance schedules and submit written notification to the TCEQ Executive Director as required in 30 TAC Chapter 117, Subchapter H, Division 1:
 - (i) For sources in the Houston-Galveston-Brazoria Nonattainment area, 30 TAC § 117.9020:
 - (1) Title 30 TAC § 117.9020(2)(A), (C), and (D)
 - B. The permit holder shall comply with the Initial Control Plan unit listing requirement in 30 TAC § 117.350(c) and (c)(1).
 - C. The permit holder shall comply with the requirements of 30 TAC § 117.354 for Final Control Plan Procedures for Attainment Demonstration Emission Specifications and 30 TAC § 117.356 for Revision of Final Control Plan.
25. Use of Emission Credits to comply with applicable requirements:
 - A. Unless otherwise prohibited, the permit holder may use emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) Offsets for Title 30 TAC Chapter 116
 - B. The permit holder shall comply with the following requirements in order to use the emission credits to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.306(c)-(d)

- (ii) The emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 1
- (iii) The executive director has approved the use of the credit according to 30 TAC § 101.306(c)-(d)
- (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.302(g) and 30 TAC Chapter 122
- (v) Title 30 TAC § 101.305 (relating to Emission Reductions Achieved Outside the United States)

26. Use of Discrete Emission Credits to comply with the applicable requirements:

- A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
 - (i) Title 30 TAC Chapter 115
 - (ii) Title 30 TAC Chapter 117
 - (iii) If applicable, offsets for Title 30 TAC Chapter 116
 - (iv) Temporarily exceed state NSR permit allowables
- B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
 - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
 - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
 - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
 - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
 - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Risk Management Plan

27. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the

date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

Protection of Stratospheric Ozone

28. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:
 - A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

Permit Location

29. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Permit Shield (30 TAC § 122.148)

30. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

Attachments

Applicable Requirements Summary

Additional Monitoring Requirements

Permit Shield

New Source Review Authorization References

Schedules

Applicable Requirements Summary

Unit Summary..... 19

Applicable Requirements Summary 27

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
MEOHANALZ	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-1	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
MEOHANALZ	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-1	40 CFR Part 63, Subpart G	No changing attributes.
MEOHENG	SRIC ENGINES	N/A	R7ICI-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
MEOHENG	SRIC ENGINES	N/A	60III-1	40 CFR Part 60, Subpart III	No changing attributes.
MEOHENG	SRIC ENGINES	N/A	63ZZZZ-1	40 CFR Part 63, Subpart ZZZZ	No changing attributes.
MEOHFLR	FLARES	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
MEOHFLR	FLARES	N/A	63A-1	40 CFR Part 63, Subpart A	Flare Exit Velocity = Flare exit velocity is less than 60 ft/s (18.3 m/sec)
MEOHFLR	FLARES	N/A	63A-2	40 CFR Part 63, Subpart A	Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating value is greater than 1000 Btu/scf (37.3 MJ/scm).
MEOHFLR	FLARES	N/A	63A-3	40 CFR Part 63, Subpart A	Flare Exit Velocity = Flare exit velocity is greater than or equal to 60 ft/s (18.3 m/sec) but less than 400 ft/s (122 m/sec)., Heating Value of Gas = Heating

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					value is less than or equal to 1000 Btu/scf (37.3 MJ/scm).
MEOHFLRHDR	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R5121-MSS	30 TAC Chapter 115, Vent Gas Controls	No changing attributes.
MEOHFUG	FUGITIVE EMISSION UNITS	N/A	R5352-ALL	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	No changing attributes.
MEOHFUG	FUGITIVE EMISSION UNITS	N/A	63H-ALL	40 CFR Part 63, Subpart H	No changing attributes.
PROME OH	CHEMICAL MANUFACTURING PROCESS	N/A	63F-1	40 CFR Part 63, Subpart F	No changing attributes.
REFORM	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
REFORM	PROCESS HEATERS/FURNACES	N/A	R7ICI-1	30 TAC Chapter 117, Subchapter B	No changing attributes.
REFORM	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-1	40 CFR Part 63, Subpart DDDDD	No changing attributes.
T9501	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-1	40 CFR Part 63, Subpart G	Overlap = Title 40 CFR Part 63, Subpart G only, Control Device = Flare, Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					made, or the results reliably indicate compliance.
T9501	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-2	40 CFR Part 63, Subpart G	Overlap = Title 40 CFR Part 60, Subpart NNN, Control Device = Boiler or process heater into which the process vent stream is introduced with the primary fuel or is used as the primary fuel, Performance Test = No previous performance test was conducted.
T9502	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-1	40 CFR Part 63, Subpart G	Control Device = Flare, Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.
T9502	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-2	40 CFR Part 63, Subpart G	Control Device = Boiler or process heater into which the process vent stream is introduced with the primary fuel or is used as the primary fuel, Performance Test = No previous performance test was conducted.
T9503	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-1	40 CFR Part 63, Subpart G	Control Device = Flare, Performance Test = A performance test was conducted for determining compliance with

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.
T9503	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-2	40 CFR Part 63, Subpart G	Control Device = Boiler or process heater into which the process vent stream is introduced with the primary fuel or is used as the primary fuel, Performance Test = No previous performance test was conducted.
T9504	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-1	40 CFR Part 63, Subpart G	Control Device = Flare, Performance Test = A performance test was conducted for determining compliance with a regulation promulgated by the EPA using the same methods specified in Subpart G and either no process changes have been made, or the results reliably indicate compliance.
T9504	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	63G-2	40 CFR Part 63, Subpart G	Control Device = Boiler or process heater into which the process vent stream is introduced with the primary fuel or is used as the primary fuel, Performance Test = No previous performance test was conducted.
V340	STORAGE	N/A	R5112-1	30 TAC Chapter 115,	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
	TANKS/VESSELS			Storage of VOCs	
V340	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V340	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	No changing attributes.
V340	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	No changing attributes.
V341	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V341	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V341	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	No changing attributes.
V341	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	No changing attributes.
V342	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V342	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V342	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	No changing attributes.
V342	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	No changing attributes.
V344	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
V344	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V344	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	No changing attributes.
V344	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	No changing attributes.
V345	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V345	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V345	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	No changing attributes.
V345	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	No changing attributes.
V9504	STORAGE TANKS/VESSELS	N/A	R5112-MSS	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V9504	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	Emission Control Type = Emissions routed to a fuel gas system, Closed Vent System = Closed vent system is routing emissions to a process or fuel gas system, or is subject to § 63.148 of Subpart G, Hard Piping = The closed vent system is constructed of hard piping.
V9504	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	Emission Control Type = Closed vent system (CVS) and control device (fixed roof), Control

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
					Device Type = Flare, Closed Vent System = Closed vent system is subject to § 63.172 of Subpart H
V9506	STORAGE TANKS/VESSELS	N/A	R5111-MSS1	30 TAC Chapter 115, Storage of VOCs	True Vapor Pressure = True vapor pressure is greater than or equal to 1.0 psia but less than 1.5 psia, Control Device Type = Other control device
V9506	STORAGE TANKS/VESSELS	N/A	R5112-MSS1	30 TAC Chapter 115, Storage of VOCs	True Vapor Pressure = True vapor pressure is greater than or equal to 1.5 psia
V9506	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	Emission Control Type = Emissions routed to a fuel gas system, Closed Vent System = Closed vent system is routing emissions to a process or fuel gas system, or is subject to § 63.148 of Subpart G, Hard Piping = The closed vent system is constructed of hard piping.
V9506	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	Emission Control Type = Closed vent system (CVS) and control device (fixed roof), Control Device Type = Flare, Closed Vent System = Closed vent system is subject to § 63.172 of Subpart H
V9802	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.
V9802	STORAGE TANKS/VESSELS	N/A	R5112-2	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
V9802	STORAGE TANKS/VESSELS	N/A	63G119-1	40 CFR Part 63, Subpart G	No changing attributes.
V9802	STORAGE TANKS/VESSELS	N/A	63G119-2	40 CFR Part 63, Subpart G	No changing attributes.
V9814	STORAGE TANKS/VESSELS	N/A	R5112-1	30 TAC Chapter 115, Storage of VOCs	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
MEOHANALZ	EP	R5121-1	VOC	30 TAC Chapter 115, Vent Gas Controls	§ 115.127(a)(2)(A) [G]§ 115.122(a)(4) § 115.127(a)(2)	A vent gas stream having a combined weight of volatile organic compounds (VOC) < 100 lbs (45.4 kg) in any continuous 24-hour period is exempt from the requirements of § 115.121(a)(1).	[G]§ 115.125 § 115.126(2)	§ 115.126 § 115.126(2) § 115.126(4)	None
MEOHANALZ	EP	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.113(f) [G]§ 63.115(f)	The owner or operator of a Group 2 process vent with a flow rate < than 0.005 standard m ³ /min shall maintain a flow rate less than 0.005 standard m ³ /min and comply with the sections as specified.	[G]§ 63.115(a) [G]§ 63.115(b) § 63.115(e) § 63.115(e)(1) [G]§ 63.115(f)	[G]§ 63.118(d) [G]§ 63.152(a)	§ 63.115(e)(2) § 63.117(c) [G]§ 63.118(g) [G]§ 63.118(i) [G]§ 63.118(k) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(i) § 63.152(c)(4)(ii) § 63.152(c)(4)(iii) [G]§ 63.152(c)(6)
MEOHENG	EU	R7ICI-1	EXEMPT	30 TAC Chapter 117, Subchapter B	[G]§ 117.303(a)(11) [G]§ 117.310(f)	Units exempted from the provisions of this division except as specified in §§117.310(f),	None	§ 117.340(j) [G]§ 117.345(f)(10) [G]§ 117.345(f)(6)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						117.340(j), 117.345(f)(6) and (10), 117.350(c)(1) and 117.354(a)(5) include new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after October 1, 2001, that operates less than 100 hours per year, based on a rolling 12-month average, in other than emergency situations; and meets the requirements for non-road engines as specified. §117.303(a)(11)(A)-(B)			
MEOHENG	EU	60III-1	CO	40 CFR Part 60, Subpart III	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 37 KW and less than 130 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply	None	None	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						with a CO emission limit of 5.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).			
MEOHENG	EU	60III-1	NMHC and NO _x	40 CFR Part 60, Subpart III	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than or equal to 560 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NO _x emission limit of 4.0 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	None	None	[G]§ 60.4214(d)
MEOHENG	EU	60III-1	PM (OPACITY)	40 CFR Part 60, Subpart III	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.113(a)(1) § 89.113(a)(2) § 89.113(a)(3)	Emergency stationary CI ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max engine power < 2237 KW and a 2007 model year and later or max engine power	None	None	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						> 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in §60.4202(a)(1)-(2), (b)(2) and §89.113(a)(1)-(3) and §1039.105(b)(1)-(3).			
MEOHENG	EU	60III-1	PM	40 CFR Part 60, Subpart III	§ 60.4205(b) § 60.4202(a)(2) § 60.4206 § 60.4207(b) [G]§ 60.4211(a) § 60.4211(c) [G]§ 60.4211(f) § 60.4218 § 89.112(a)	Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 75 KW and less than 130 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.30 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a).	None	None	[G]§ 60.4214(d)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
MEOHENG	EU	63ZZZZ-1	112(B) HAPS	40 CFR Part 63, Subpart ZZZZ	§ 63.6590(c)	Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part.	None	None	None
MEOHFLR	EU	R1111-1	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.11(a).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
MEOHFLR	CD	63A-1	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1)	Flares shall be designed and	§ 63.11(b)(4) § 63.11(b)(5)	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(i)	operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(7)(i)		
MEOHFLR	CD	63A-2	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(ii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
MEOHFLR	CD	63A-3	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(ii) § 63.11(b)(7)(iii)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
MEOHFLRHDR	EP	R5121-MSS	VOC	30 TAC Chapter 115,	§ 115.122(a)(2) § 115.121(a)(2)	Vent gas affected by §115.121(a)(2) must	[G]§ 115.125 § 115.126(1)	§ 115.126 § 115.126(1)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Vent Gas Controls	§ 115.122(a)(2)(A) § 60.18	be controlled properly with a control efficiency > 98% or to a VOC concentration of no more than 20 ppmv (dry, corrected to 3% O2 for combustion devices).	§ 115.126(1)(B) § 115.126(2) § 115.126(7) ** See CAM Summary	§ 115.126(1)(B) § 115.126(2)	
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(6)	Components at a petroleum refinery or synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing process, that contact a process fluid that contains less than 10% VOC by weight and components at a natural gas/gasoline processing operation that contact a process fluid that contains less than 1.0% VOC by weight are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(5)	Reciprocating compressors and positive displacement pumps used in natural	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						gas/gasoline processing operations are exempt from the requirements of this division except §115.356(3)(C) of this title.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(10)	Instrumentation systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet 40 CFR §63.169 (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(11)	Sampling connection systems, as defined in 40 CFR §63.161 (January 17, 1997), that meet the requirements of 40 CFR §63.166(a) and (b) (June 20, 1996) are exempt from the requirements of this division except §115.356(3)(C) of this title.	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery &	§ 115.357(13)	Components/systems that contact a process fluid	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Petrochemicals		containing VOC having a true vapor pressure equal to or less than 0.002 psia at 68 degrees Fahrenheit are exempt from the requirements of this division except §115.356(3)(C) of this title.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.357(2) § 115.352(9)	Each pressure relief valve equipped with a rupture disk must comply with §115.352(9) and §115.356(3)(C).	None	§ 115.356 § 115.356(3) [G]§ 115.356(3)(C)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.353(a) § 115.353(b) § 115.910	For all affected persons in the Beaumont-Port Arthur, Dallas-Fort Worth, El Paso, and Houston-Galveston areas, as defined in §115.10, any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division may be approved by the executive director in accordance with	None	None	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						§115.910 if emission reductions are demonstrated to be substantially equivalent.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(C) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.352(8) § 115.357(8) § 115.358(c)(1) [G]§ 115.358(h)	No component shall be allowed to have a VOC leak, for more than 15 days, after discovery. If the owner or operator elects to use the alternative work practice in §115.358 of this title, any leak detected as defined in §115.358 of this title, including any leak detected using the alternative work practice on a component that is subject to the requirements of this division but not specifically selected for alternative work practice monitoring.	§ 115.354(1) § 115.354(11) § 115.354(13)(A) § 115.354(13)(B) § 115.354(13)(C) § 115.354(13)(D) § 115.354(13)(E) § 115.354(4) § 115.354(5) § 115.354(9) [G]§ 115.355 § 115.358(c)(2) § 115.358(d) [G]§ 115.358(e) § 115.358(f)	§ 115.352(7) § 115.354(13)(D) § 115.354(13)(E) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) [G]§ 115.356(4) § 115.356(5)	[G]§ 115.358(g)
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7) § 115.357(1)	No process drains shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(7)	No process drains shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(1) § 115.357(8) § 115.357(9)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid	§ 115.354(1) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						based on sight, smell, or sound.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(9) § 115.357(12) § 115.357(8) § 115.357(9)	No pressure relief valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(4) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No open-ended valves or lines shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115,	§ 115.352(1)(A) § 115.352(1)	No open-ended valves or lines shall	§ 115.354(1) § 115.354(10)	§ 115.352(7) § 115.354(10)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Pet. Refinery & Petrochemicals	§ 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4) § 115.352(5) § 115.352(6) § 115.352(7) § 115.357(1) § 115.357(8) § 115.357(9)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	[G]§ 115.354(7)
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(B) § 115.352(3) § 115.352(4)	No valves shall be allowed to have a VOC leak, for more than 15 days after discovery, which exceeds a screening concentration greater than 500 parts per	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) [G]§ 115.354(7) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B)	[G]§ 115.354(7)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(5) § 115.352(6) § 115.352(7) § 115.357(12) § 115.357(8) § 115.357(9)	million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.		[G]§ 115.356(3)(C) § 115.356(5)	
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(8) § 115.357(1) § 115.357(12) § 115.357(8)	No flanges or other connectors shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(3) § 115.352(5) § 115.352(7) § 115.352(8) § 115.357(12) § 115.357(8)	No flanges or other connectors shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid	§ 115.354(1) § 115.354(10) § 115.354(11) § 115.354(3) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						based on sight, smell, or sound.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(A) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(1) § 115.357(12) § 115.357(8)	No agitators shall be allowed to have a VOC leak, for more than 15 days after	§ 115.354(1) § 115.354(10) § 115.354(5) § 115.354(6)	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(7) § 115.357(12) § 115.357(8)	discovery which exceeds a screening concentration greater than 500 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(9) [G]§ 115.355 § 115.357(1)	[G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(3) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	No compressor seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell,	§ 115.354(1) § 115.354(10) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	§ 115.352(7) § 115.354(10) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						or sound.			
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(4) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	[G]§ 115.355	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery & Petrochemicals	§ 115.352(1)(B) § 115.352(1) § 115.352(10) § 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(1) § 115.357(8)	No pump seals shall be allowed to have a VOC leak, for more than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(1) § 115.354(2) § 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355 § 115.357(1)	§ 115.352(7) § 115.356 [G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) [G]§ 115.356(3)(C) § 115.356(5)	None
MEOHFUG	EU	R5352-ALL	VOC	30 TAC Chapter 115, Pet. Refinery &	§ 115.352(1)(B) § 115.352(1) § 115.352(10)	No pump seals shall be allowed to have a VOC leak, for more	§ 115.354(1) § 115.354(10) § 115.354(2)	§ 115.352(7) § 115.354(10) § 115.356	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				Petrochemicals	§ 115.352(2) § 115.352(2)(A) § 115.352(2)(C) § 115.352(2)(C)(i) § 115.352(2)(C)(ii) § 115.352(2)(C)(iii) § 115.352(3) § 115.352(5) § 115.352(7) § 115.357(12) § 115.357(8)	than 15 days after discovery which exceeds a screening concentration greater than 10,000 parts per million by volume above background as methane, or the dripping or exuding of process fluid based on sight, smell, or sound.	§ 115.354(5) § 115.354(6) § 115.354(9) [G]§ 115.355	[G]§ 115.356(1) [G]§ 115.356(2) § 115.356(3) § 115.356(3)(A) § 115.356(3)(B) [G]§ 115.356(3)(C) § 115.356(5)	
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.162(e) § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h)	Equipment that is in organic HAP service less than 300 hours per year is excluded from the requirements of §§63.163 - 63.174 and §63.178 if it is identified as required in §63.181(j).	[G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i) § 63.181(j)	[G]§ 63.182(a) [G]§ 63.182(b)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.164 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Compressors. §63.164(a)-(i)	[G]§ 63.164 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.165 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief device in gas/vapor service. §63.165(a)-(d)	[G]§ 63.165 [G]§ 63.180(b) [G]§ 63.180(c) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(f)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.166 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Sampling connection systems. §63.166(a)-(c)	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pumps in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Valves in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Agitators in heavy liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Instrumentation systems. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.169 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Pressure relief devices in liquid service. §63.169(a)-(d)	[G]§ 63.169 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	§ 63.170 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Surge control vessels and bottom receivers.	[G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.173 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Agitators gas/vapor service and in light liquid service. §63.173(a)-(j).	[G]§ 63.173 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.174 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171	Standards: Connectors in gas/vapor service and in light liquid service. §63.174(a)-(j)	[G]§ 63.174 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.163 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.176	Standards: Pumps in light liquid service. §63.163(a)-(j)	[G]§ 63.163 [G]§ 63.176 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(3) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) § 63.181(h)(8)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.167 § 63.162(a) § 63.162(c) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Open-ended valves or lines. §63.167(a)-(e).	[G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7) [G]§ 63.181(i)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
MEOHFUG	EU	63H-ALL	112(B) HAPS	40 CFR Part 63, Subpart H	[G]§ 63.168 § 63.162(a) § 63.162(c) [G]§ 63.162(f) [G]§ 63.162(g) § 63.162(h) [G]§ 63.171 [G]§ 63.175	Standards: Valves in gas/vapor service and in light liquid service. §63.168(a)-(j)	[G]§ 63.168 [G]§ 63.175 [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(h) [G]§ 63.181(h)(1) [G]§ 63.181(h)(2) § 63.181(h)(4) [G]§ 63.181(h)(5) § 63.181(h)(6) § 63.181(h)(7)	[G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
PROMEIOH	PRO	63F-1	112(B) HAPS	40 CFR Part 63, Subpart F	§ 63.100(b) [G]§ 63.102(a) [G]§ 63.102(c)	Except as provided in paragraphs (b)(4) and (c) of this section, the	§ 63.103(b)(1) § 63.103(b)(3) § 63.103(b)(4)	[G]§ 63.103(c) [G]§ 63.104(e)(2) [G]§ 63.104(f)(1)	§ 63.103(b)(2) [G]§ 63.103(b)(5) [G]§ 63.103(d)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.104(a) [G]§ 63.104(d) § 63.104(e) § 63.104(e)(1) [G]§ 63.104(e)(2) § 63.105(d)	provisions of subparts F, G, and H apply to chemical manufacturing process units that meet the criteria.	[G]§ 63.103(b)(5) § 63.103(b)(6) [G]§ 63.104(b)	[G]§ 63.105(b) § 63.105(c) § 63.105(e)	[G]§ 63.104(f)(2)
REFORM	EP	R1111-1	PM (OPACITY)	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
REFORM	EU	R7ICI-1	NO _x	30 TAC Chapter 117, Subchapter B	§ 117.310(d)(3) § 117.310(a) § 117.310(a)(8)(A)(i) § 117.310(b) [G]§ 117.310(e)(1) § 117.310(e)(2) [G]§ 117.310(e)(3) § 117.310(e)(4) § 117.340(f)(1) § 117.340(l)(2) § 117.340(p)(1) § 117.340(p)(3)	An owner or operator may not use the alternative methods specified in §§ 117.315, 117.323 and 117.9800 to comply with the NO _x emission specifications but shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3, except that electric generating facilities must also comply with the daily and 30-day system cap	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(2) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(c)(1) [G]§ 117.340(c)(3) [G]§ 117.340(f)(2) § 117.340(l)(2) § 117.340(o)(1) § 117.340(p)(1) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(3) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) § 117.8010(2)(C) § 117.8010(2)(D) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						emission limitations of § 117.320. An owner or operator may use the alternative methods specified in § 117.9800 to comply with § 117.320.	§ 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(i) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6)		
REFORM	EU	R7ICI-1	CO	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(1) § 117.310(c)(1)(A) § 117.310(c)(3) § 117.340(f)(1)	CO emissions must not exceed 400 ppmv at 3.0% O ₂ , dry basis.	[G]§ 117.335(a)(1) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(f) § 117.335(f)(3) § 117.335(g) § 117.340(a) § 117.340(b)(1) § 117.340(b)(3) § 117.340(e) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(B)(iii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5)	§ 117.345(a) § 117.345(f) § 117.345(f)(1) [G]§ 117.345(f)(2) § 117.345(f)(7) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
							§ 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8120 § 117.8120(1) § 117.8120(1)(A)		
REFORM	EU	R7ICI-1	NH ₃	30 TAC Chapter 117, Subchapter B	§ 117.310(c)(2) § 117.310(c)(2)(B) § 117.340(f)(1)	For process heaters that inject urea or ammonia into the exhaust stream for NO _x control, ammonia emissions must not exceed 10 ppmv at 3.0% O ₂ , dry.	§ 117.335(a)(2) § 117.335(a)(4) § 117.335(b) § 117.335(c) § 117.335(d) § 117.335(g) § 117.340(b)(1) § 117.340(b)(3) § 117.340(d) [G]§ 117.340(f)(2) § 117.8100(a) § 117.8100(a)(1) § 117.8100(a)(1)(A) § 117.8100(a)(1)(B) § 117.8100(a)(1)(B)(ii) § 117.8100(a)(1)(C) § 117.8100(a)(2) [G]§ 117.8100(a)(3) § 117.8100(a)(4) § 117.8100(a)(5) § 117.8100(a)(5)(A) § 117.8100(a)(5)(B) [G]§ 117.8100(a)(5)(D) [G]§ 117.8100(a)(5)(E) § 117.8100(a)(6) § 117.8130 § 117.8130(4)	§ 117.345(a) § 117.345(f) § 117.345(f)(11) [G]§ 117.345(f)(2) § 117.345(f)(8) § 117.345(f)(9) § 117.8100(a)(5)(C)	§ 117.335(b) § 117.335(g) [G]§ 117.345(b) [G]§ 117.345(c) § 117.345(d) § 117.345(d)(2) § 117.345(d)(3) § 117.345(d)(4) § 117.345(d)(5) § 117.8010 [G]§ 117.8010(1) § 117.8010(2) § 117.8010(2)(A) § 117.8010(2)(B) [G]§ 117.8010(3) § 117.8010(4) [G]§ 117.8010(5) § 117.8010(6) [G]§ 117.8010(7) [G]§ 117.8010(8) § 117.8100(c)
REFORM	EU	63DDD DD-1	112(B) HAPS	40 CFR Part 63, Subpart	§ 63.7505 The permit holder	The permit holder shall comply with the	The permit holder shall comply with the	The permit holder shall comply with the	The permit holder shall comply with the

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
				DDDDD	shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	applicable requirements of 40 CFR Part 63, Subpart DDDDD	applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
T9501	EP	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(1) § 63.11 § 63.113(h) [G]§ 63.115(f)	Reduce emissions of organic HAP using a flare. §63.113(a)(1)(i)-(ii)	§ 63.114(a) § 63.114(a)(2) § 63.114(d)(2) [G]§ 63.115(f) [G]§ 63.116(a)	[G]§ 63.117(a)(5) § 63.118(a)(1) § 63.118(a)(2) § 63.118(a)(4) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(5) § 63.117(f) § 63.118(f)(2) § 63.118(f)(4) § 63.118(f)(5) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
T9501	EP	63G-2	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(2) § 63.113(b) § 63.113(h) [G]§ 63.115(f) § 63.116(b)	Reduce emissions of total organic HAPs by 98 wt.% or to a concentration of 20 ppm by volume; whichever is less	§ 63.114(d)(2) [G]§ 63.115(f)	§ 63.117(a)(4) § 63.117(a)(4)(iii) § 63.118(a)(4) [G]§ 63.152(a)	§ 63.117(a)(4) § 63.117(a)(4)(iii) § 63.118(f)(4) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						stringent or as specified. §63.113(a)(2)(i)-(ii)			§ 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
T9502	EP	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(1) § 63.11 § 63.113(h) [G]§ 63.115(f)	Reduce emissions of organic HAP using a flare. §63.113(a)(1)(i)-(ii)	§ 63.114(a) § 63.114(a)(2) § 63.114(d)(2) [G]§ 63.115(f) [G]§ 63.116(a)	[G]§ 63.117(a)(5) § 63.118(a)(1) § 63.118(a)(2) § 63.118(a)(4) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(5) § 63.117(f) § 63.118(f)(2) § 63.118(f)(4) § 63.118(f)(5) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
T9502	EP	63G-2	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(2) § 63.113(b) § 63.113(h) [G]§ 63.115(f)	Reduce emissions of total organic HAPs by 98 wt.% or to a concentration of 20	§ 63.114(d)(2) [G]§ 63.115(f)	§ 63.117(a)(4) § 63.117(a)(4)(iii) § 63.118(a)(4) [G]§ 63.152(a)	§ 63.117(a)(4) § 63.117(a)(4)(iii) § 63.118(f)(4) [G]§ 63.151(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.116(b)	ppm by volume; whichever is less stringent or as specified. §63.113(a)(2)(i)-(ii)			§ 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
T9503	EP	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(1) § 63.11 § 63.113(h) [G]§ 63.115(f)	Reduce emissions of organic HAP using a flare. §63.113(a)(1)(i)-(ii)	§ 63.114(a) § 63.114(a)(2) § 63.114(d)(2) [G]§ 63.115(f) [G]§ 63.116(a)	[G]§ 63.117(a)(5) § 63.118(a)(1) § 63.118(a)(2) § 63.118(a)(4) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(5) § 63.117(f) § 63.118(f)(2) § 63.118(f)(4) § 63.118(f)(5) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
T9503	EP	63G-2	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(2) § 63.113(b)	Reduce emissions of total organic HAPs by	§ 63.114(d)(2) [G]§ 63.115(f)	§ 63.117(a)(4) § 63.117(a)(4)(iii)	§ 63.117(a)(4) § 63.117(a)(4)(iii)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.113(h) [G]§ 63.115(f) § 63.116(b)	98 wt.% or to a concentration of 20 ppm by volume; whichever is less stringent or as specified. §63.113(a)(2)(i)-(ii)		§ 63.118(a)(4) [G]§ 63.152(a)	§ 63.118(f)(4) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
T9504	EP	63G-1	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(1) § 63.11 § 63.113(h) [G]§ 63.115(f)	Reduce emissions of organic HAP using a flare. §63.113(a)(1)(i)-(ii)	§ 63.114(a) § 63.114(a)(2) § 63.114(d)(2) [G]§ 63.115(f) [G]§ 63.116(a)	[G]§ 63.117(a)(5) § 63.118(a)(1) § 63.118(a)(2) § 63.118(a)(4) [G]§ 63.152(a) [G]§ 63.152(f)	§ 63.114(e) [G]§ 63.117(a)(5) § 63.117(f) § 63.118(f)(2) § 63.118(f)(4) § 63.118(f)(5) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) [G]§ 63.152(b)(2) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
T9504	EP	63G-2	112(B) HAPS	40 CFR Part 63, Subpart G	[G]§ 63.113(a)(2) § 63.113(b) § 63.113(h) [G]§ 63.115(f) § 63.116(b)	Reduce emissions of total organic HAPs by 98 wt.% or to a concentration of 20 ppm by volume; whichever is less stringent or as specified. §63.113(a)(2)(i)-(ii)	§ 63.114(d)(2) [G]§ 63.115(f)	§ 63.117(a)(4) § 63.117(a)(4)(iii) § 63.118(a)(4) [G]§ 63.152(a)	§ 63.117(a)(4) § 63.117(a)(4)(iii) § 63.118(f)(4) [G]§ 63.151(b) § 63.151(e) [G]§ 63.151(e)(1) § 63.151(e)(2) § 63.151(e)(3) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6)
V340	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						crude oil and condensate.			
V340	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None
V340	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with §63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(iii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2)

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Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
								§ 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V340	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(iii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									[G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V341	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.			
V341	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None
V341	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.172(m)	(5).	[G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V341	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
								§ 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V342	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.			
V342	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None
V342	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	with§63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-(5).	§ 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V342	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with§63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.172(m)	(5).	[G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V344	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.			
V344	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None
V344	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1)	The owner or operator who elects to use a closed vent	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(iii)(A)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	[G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V344	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	with§63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-(5).	§ 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V345	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.			
V345	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
V345	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V345	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1)	The owner or operator who elects to use a closed vent	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					§ 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	[G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V9504	EU	R5112-MSS	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(C) § 60.18	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of	§ 115.115(a) § 115.115(a)(6) § 115.116(a)(2) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(F) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.			
V9504	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(f) § 63.119(a)(1) [G]§ 63.119(f)(1) [G]§ 63.119(f)(3)	Owner or operator who routes emissions to a fuel gas system or to a process, as defined in §63.111, to comply with §63.119(a)(1), or (a)(2) shall comply with §63.119(f)(1)-(3) as applicable.	None	§ 63.123(a) [G]§ 63.123(h) [G]§ 63.152(a)	§ 63.120(f) § 63.122(c)(3) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
V9504	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.11 § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with §63.119(a)(1) or (a)(2) shall comply	§ 63.120(e)(1) § 63.120(e)(4) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l)	§ 63.123(a) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c)	[G]§ 63.120(e)(2) § 63.122(c)(2) [G]§ 63.122(g)(1) [G]§ 63.122(g)(3) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					[G]§ 63.172(h) § 63.172(i) § 63.172(m)	with §63.119(e)(1)-(5).	[G]§ 63.180(b) [G]§ 63.180(d)	[G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V9506	EU	R5111-MSS1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.111(a)(1)	Except as provided in § 115.118, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.	[G]§ 115.117	§ 115.118(a)(1) § 115.118(a)(5) § 115.118(a)(7)	None
V9506	EU	R5112-MSS1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss	[G]§ 115.117 ** See Periodic Monitoring Summary	§ 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.			
V9506	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(f) § 63.119(a)(1) [G]§ 63.119(f)(1) [G]§ 63.119(f)(3)	Owner or operator who routes emissions to a fuel gas system or to a process, as defined in §63.111, to comply with §63.119(a)(1), or (a)(2) shall comply with §63.119(f)(1)-(3) as applicable.	None	§ 63.123(a) [G]§ 63.123(h) [G]§ 63.152(a)	§ 63.120(f) § 63.122(c)(3) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(4)(ii)
V9506	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.11 § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with §63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-(5).	§ 63.120(e)(1) § 63.120(e)(4) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii)	[G]§ 63.120(e)(2) § 63.122(c)(2) [G]§ 63.122(g)(1) [G]§ 63.122(g)(3) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
								[G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V9802	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
V9802	EU	R5112-2	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1) § 115.112(e)(3) § 115.112(e)(3)(B)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1) of this paragraph for crude oil and condensate.	§ 115.115(a) [G]§ 115.115(a)(5) [G]§ 115.117	§ 115.118(a)(4) § 115.118(a)(4)(E) § 115.118(a)(5) § 115.118(a)(7)	None
V9802	EU	63G119-1	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with § 63.119(a)(1) or (a)(2) shall comply with § 63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
								[G]§ 63.181(g)(3)	[G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b) [G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V9802	EU	63G119-2	112(B) HAPS	40 CFR Part 63, Subpart G	§ 63.119(e) § 63.119(a)(1) § 63.119(e)(1) § 63.119(e)(3) § 63.119(e)(4) § 63.119(e)(5) § 63.172(a) [G]§ 63.172(h) § 63.172(i) § 63.172(m)	The owner or operator who elects to use a closed vent system and control device (defined in § 63.111) to comply with §63.119(a)(1) or (a)(2) shall comply with §63.119(e)(1)-(5).	§ 63.120(d)(1) § 63.120(d)(1)(ii) § 63.120(d)(1)(ii)(A) § 63.120(d)(5) [G]§ 63.172(f)(1) [G]§ 63.172(f)(2) § 63.172(g) [G]§ 63.172(h) [G]§ 63.172(k) [G]§ 63.172(l) [G]§ 63.180(b) [G]§ 63.180(d)	§ 63.123(a) § 63.123(f)(1) [G]§ 63.123(f)(2) [G]§ 63.152(a) [G]§ 63.172(k) [G]§ 63.172(l) § 63.181(a) [G]§ 63.181(b) § 63.181(c) [G]§ 63.181(d) § 63.181(g) § 63.181(g)(1)(i) § 63.181(g)(1)(ii) [G]§ 63.181(g)(2) [G]§ 63.181(g)(3)	§ 63.120(d)(1)(ii)(B) § 63.120(d)(2) § 63.120(d)(2)(i) [G]§ 63.120(d)(2)(iii) § 63.120(d)(3) § 63.120(d)(3)(i) § 63.120(d)(3)(ii) § 63.120(d)(4) § 63.122(b) § 63.122(c)(1) [G]§ 63.122(g)(1) [G]§ 63.122(g)(2) § 63.151(a)(7) [G]§ 63.151(b) [G]§ 63.151(j) [G]§ 63.152(a) § 63.152(b)

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									[G]§ 63.152(b)(1) § 63.152(b)(4) § 63.152(c)(1) § 63.152(c)(2) § 63.152(c)(2)(i) [G]§ 63.152(c)(2)(ii) § 63.152(c)(2)(iii) § 63.152(c)(3) § 63.152(c)(3)(i) § 63.152(c)(4)(ii) [G]§ 63.152(c)(6) [G]§ 63.182(a) [G]§ 63.182(b) § 63.182(c) [G]§ 63.182(c)(1) § 63.182(c)(4) [G]§ 63.182(d)
V9814	EU	R5112-1	VOC	30 TAC Chapter 115, Storage of VOCs	§ 115.112(e)(1)	No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of subsection (a)(1)	[G]§ 115.117 ** See Periodic Monitoring Summary	§ 115.118(a)(5) § 115.118(a)(7)	None

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						of this paragraph for crude oil and condensate.			

Additional Monitoring Requirements

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CAM Summary

Unit/Group/Process Information	
ID No.: MEOHFLRHDR	
Control Device ID No.: MEOHFLR	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-MSS
Pollutant: VOC	Main Standard: § 115.122(a)(2)
Monitoring Information	
Indicator: Inlet Flow Rate	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: Inlet flow greater than 800,070 lbs/hr	
<p>CAM Text: Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to within one of the following:</p> <ul style="list-style-type: none"> ± 2% of span; or ± 5% of design flow rate. 	

CAM Summary

Unit/Group/Process Information	
ID No.: MEOHFLRHDR	
Control Device ID No.: MEOHFLR	Control Device Type: Flare
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Vent Gas Controls	SOP Index No.: R5121-MSS
Pollutant: VOC	Main Standard: § 115.122(a)(2)
Monitoring Information	
Indicator: Net Heating Value	
Minimum Frequency: four times per hour	
Averaging Period: one hour	
Deviation Limit: Heating value less 200 Btu/scf when waste gas directed to the flare & exit velocity less than 60 ft/sec; or heating value less than 1,000 Btu/scf when waste gas is directed to the flare & exit velocity greater than 60 ft/sec and less than 400 ft/sec.	
CAM Text: A continuous analyzer that provides the net heating value of the gas being combusted using the procedures and specifications of 40 CFR § 60.18(f)(3). The sample points should be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed.	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: REFORM	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-1
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: once per week	
Averaging Period: n/a	
<p>Deviation Limit: There shall be no visible emissions. If visible emissions are observed, the permit holder may either report a deviation or perform Test Method 9 and opacity shall not exceed 15%.</p> <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the opacity limit in the applicable requirement, the permit holder shall report a deviation.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: V9506	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-MSS1
Pollutant: VOC	Main Standard: § 115.112(e)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: n/a	
Deviation Limit: If structural integrity repairs are not completed prior to refilling the storage tank.	
<p>Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: V9506	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-MSS1
Pollutant: VOC	Main Standard: § 115.112(e)(1)
Monitoring Information	
Indicator: Liquid Level	
Minimum Frequency: Once per day	
Averaging Period: n/a	
Deviation Limit: Any time the liquid level falls below the fill pipe level	
<p>Periodic Monitoring Text: Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: V9814	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-1
Pollutant: VOC	Main Standard: § 115.112(e)(1)
Monitoring Information	
Indicator: Structural Integrity of the Pipe	
Minimum Frequency: Emptied and degassed	
Averaging Period: n/a	
Deviation Limit: If structural integrity repairs are not completed prior to refilling the storage tank	
<p>Periodic Monitoring Text: Inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.</p>	

Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: V9814	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 115, Storage of VOCs	SOP Index No.: R5112-1
Pollutant: VOC	Main Standard: § 115.112(e)(1)
Monitoring Information	
Indicator: Liquid Level	
Minimum Frequency: Once per day	
Averaging Period: n/a	
Deviation Limit: Any time the liquid level falls below the fill pipe level	
<p>Periodic Monitoring Text: Regardless of the location of the fill pipe, the fill pipe must be submerged at all times. Monitor and record the depth of the liquid using an automated/remote sounding device or liquid level sensing alarm/monitor. It shall be considered and reported as a deviation any time the liquid level falls below the fill pipe level.</p>	

Permit Shield

Permit Shield 89

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
DIESELTK	N/A	30 TAC Chapter 115, Storage of VOCs	Vessel has a capacity less than 1,000 gallons.
DIESELTK	N/A	40 CFR Part 60, Subpart Kb	Vessel has a capacity less than 75 m3 (19,800 gallons.)
MEOHMT	N/A	40 CFR Part 63, Subpart Q	Cooling tower is not operated with chromium-based water treatment chemicals.
REFORM	N/A	30 TAC Chapter 112, Sulfur Compounds	Heater/Furnace does not fire liquid fuel.
V1604	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank does not store a VOC.
V1604	N/A	40 CFR Part 60, Subpart Kb	Storage vessel does not store a VOL.
V1682	N/A	30 TAC Chapter 115, Storage of VOCs	Storage tank does not store Volatile Organic Compound (VOC).
V1682	N/A	40 CFR Part 60, Subpart Kb	Storage tank does not store Volatile Organic Liquid (VOL).
V340	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V341	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V342	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G..
V344	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V345	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V9504	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V9506	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V9802	N/A	40 CFR Part 60, Subpart Kb	HON storage vessel that is also subject to the provisions of 40 CFR Part 60, Subpart Kb is required to comply only with provisions of 40 CFR Part 63, Subpart G.
V9814	N/A	40 CFR Part 60, Subpart Kb	Vessel has a capacity less than 75 m3 (19,800 gallons).

Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
V9814	N/A	40 CFR Part 63, Subpart G	Does not meet the definition of storage tank due to capacity less than 38 cubic meters.

New Source Review Authorization References

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New Source Review Authorization References by Emission Unit.....	94

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX1296	Issuance Date: 09/16/2013
PSD Permit No.: GHGPSDTX25	Issuance Date: 12/12/2013
Nonattainment (NA) Permits	
NA Permit No.: N164	Issuance Date: 09/16/2013
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 103626	Issuance Date: 09/16/2013
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.355	Version No./Date: 11/01/2001
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.451	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

*For reference, EPA issued permit PSD-TX-1296-GHG has been assigned permit number GHGPSDTX25.

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
DIESELTK	DIESEL TANK FOR GENERATOR	103626, N164, PSDTX1296, GHGPSDTX25
MEOHANALZ	MEOH ANALYZERS	103626, N164, PSDTX1296, GHGPSDTX25
MEOHENG	EMERGENCY GENERATOR	103626, N164, PSDTX1296, GHGPSDTX25
MEOHFLRHDR	MEOH FLARE HEADER	103626, N164, PSDTX1296, GHGPSDTX25
MEOHFLR	MEOH FLARE	103626, N164, PSDTX1296, GHGPSDTX25
MEOHFUG	MEOH FUGITIVES	103626, N164, PSDTX1296, GHGPSDTX25
MEOHMT	MEOH COOLING TOWER	103626, N164, PSDTX1296, GHGPSDTX25
PROMEOH	METHANOL PROCESS UNIT	103626, N164, PSDTX1296, GHGPSDTX25
REFORM	MEOH REFORMER	103626, N164, PSDTX1296, GHGPSDTX25
T9501	LIGHT ENDS COLUMN	103626, N164, PSDTX1296, GHGPSDTX25
T9502	LOW PRESSURE COLUMN	103626, N164, PSDTX1296, GHGPSDTX25
T9503	MEDIUM PRESSURE COLUMN	103626, N164, PSDTX1296, GHGPSDTX25
T9504	VENT WASH COLUMN (SCRUBBER)	103626, N164, PSDTX1296, GHGPSDTX25
V1604	AMMONIA TANK	103626, N164, PSDTX1296, GHGPSDTX25
V1682	DEMIN WATER TANK	103626, N164, PSDTX1296, GHGPSDTX25
V340	MEOH TANK	103626, N164, PSDTX1296, GHGPSDTX25
V341	MEOH TANK	103626, N164, PSDTX1296, GHGPSDTX25
V342	MEOH TANK	103626, N164, PSDTX1296, GHGPSDTX25
V344	MEOH TANK	103626, N164, PSDTX1296, GHGPSDTX25

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
V345	MEOH TANK	103626, N164, PSDTX1296, GHGPSDTX25
V9504	PROCESS SURGE TANK	103626, N164, PSDTX1296, GHGPSDTX25
V9506	FUSEL OIL TANK	103626, N164, PSDTX1296, GHGPSDTX25
V9802	MEOH TANK	103626, N164, PSDTX1296, GHGPSDTX25
V9814	MAINTENANCE TANK	103626, N164, PSDTX1296, GHGPSDTX25

Schedules

Compliance Schedule..... 97

Compliance Schedule

A. Compliance Schedule				
1. Specific Non-Compliance Situation				
Unit/Group/ Process ID. No(s).	SOP Index No.	Pollutant	Applicable Requirement	
			Citation	Text Description
MEOHFLR and MEOHFLRHDR	R5121-MSS	VOC	NSR 103626 Special Condition 1	EMISSIONS ONLY FROM POINTS IN THE ATTACHED TABLE ENTITLED "EMISSION SOURCES-MAER" AND FACILITIES IN THE PERMIT ARE AUTHORIZED. EMISSION AUTHORIZATION IS SUBJECT TO THE EMISSION RATE LIMITS ON TABLE AND REQUIREMENTS SPECIFIED IN SPECIAL CONDITIONS.
2. Compliance Status Assessment Method and Records Location				
Compliance Status Assessment Method			Location of Records/Documentation	
Citation	Text Description			
NSR 103626 Special Condition 1	Total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources - MAER" Emissions that exceed the MAER are not authorized and are a violation.		EHS Department, Clear Lake Plant, Pasadena, TX.	
3. Non-compliance Situation Description				
The initial MSS permitting effort failed to authorize sufficient start-up VOC emissions for the Methanol Unit. Actual emissions from the Methanol Unit's MSS Flare (EPN: MEOHFLR & MEOHFLRHDR) have exceeded the Emission Sources - Maximum Allowable Emission Rates Table (MAERT) maximum hourly emission rate and annual emission limit for VOC as established by NSR Permit 103626. Non-compliance was identified during a scheduled audit.				
4. Corrective Action Plan Description				
Submit a revision to an existing permit amendment application, for the Methanol Unit's NSR Permit 703626, to authorize an increase in the hourly and annual VOC emissions from the MSS Flare.				
5. List of Activities/Milestones to Implement the Corrective Action Plan				
1	On August 22, 2016, the company submitted a revision to an existing permit amendment application, for the Methanol Unit's NSR Permit 103626, to authorize this increase in hourly and annual VOC emissions from the MSS Flare.			
2	Within 45 days following the issuance of the amended NSR Permit 103626, the company will submit a permit revision to add applicable changes to Title V permit O3678.			

3	The company will respond to any inquiries within the time limit(s) stipulated by the APD permit reviewer.	
6. Previously Submitted Compliance Plan(s)	Type of Action	Date Submitted
7. Progress Report Submission Schedule	THE COMPANY WILL SUBMIT QUARTERLY REPORTS TO TCEQ TO DEMONSTRATE EFFORTS TO OBTAIN AUTHORIZATION.	

Appendix A

Acronym List	100
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Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM	actual cubic feet per minute
AMOC	alternate means of control
ARP	Acid Rain Program
ASTM	American Society of Testing and Materials
B/PA	Beaumont/Port Arthur (nonattainment area)
CAM	Compliance Assurance Monitoring
CD	control device
COMS	continuous opacity monitoring system
CVS	closed-vent system
D/FW	Dallas/Fort Worth (nonattainment area)
DR	Designated Representative
ELP	El Paso (nonattainment area)
EP	emission point
EPA	U.S. Environmental Protection Agency
EU	emission unit
FCAA Amendments	Federal Clean Air Act Amendments
FOP	federal operating permit
GF	grandfathered
gr/100 scf	grains per 100 standard cubic feet
HAP	hazardous air pollutant
H/G/B	Houston/Galveston/Brazoria (nonattainment area)
H ₂ S	hydrogen sulfide
ID No.	identification number
lb/hr	pound(s) per hour
MMBtu/hr	Million British thermal units per hour
MRRT	monitoring, recordkeeping, reporting, and testing
NA	nonattainment
N/A	not applicable
NADB	National Allowance Data Base
NO	nitrogen oxides
NSPS	New Source Performance Standard (40 CFR Part 60)
NSR	New Source Review
ORIS	Office of Regulatory Information Systems
Pb	lead
PBR	Permit By Rule
PM	particulate matter
ppmv	parts per million by volume
PSD	prevention of significant deterioration
RO	Responsible Official
SO ₂	sulfur dioxide
TCEQ	Texas Commission on Environmental Quality
TSP	total suspended particulate
TVP	true vapor pressure
U.S.C.	United States Code
VOC	volatile organic compound

Appendix B

Major NSR Summary Table.....	102
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Major NSR Summary Table

Permit Number: 103626/PSDTX1296/N164			Issuance Date: 9/16/13				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
MEOHFUG	Methanol Unit Fugitives (5)	CO	0.26	1.14	3	3	3
					17	20	20
		VOC	0.83	3.65	20	21	21
					21	22	22
		NH ₃	0.03	0.11	22	23	23
					23	24	
MEOHFLR	MSS Flare	VOC	17.69	2.37	3	3	3
		NO _x	137.88	20.48	6	6	
		CO	2078.40	348.69		24	
		SO ₂	0.21	0.03		31	
MEOHANALZ	Methanol Unit Analyzer	VOC	0.14	0.61	3	3	3
		CO	0.10	0.42			
REFORM	Methanol Reformer	VOC	32.05	23.88	3	3	3
		NO _x	27.28	24.91	11	11	11
		CO	169.34	219.26	13	13	19
		SO ₂	2.09	8.30	14	14	
		PM	8.13	32.37	19	19	
		PM ₁₀	8.13	32.37		24	
		PM _{2.5}	8.13	32.37		31	
		NH ₃	4.63	18.44			
MEOHMT	Cooling Tower	VOC	0.83	3.64	3	3	3
		PM	0.83	3.62	9	9	9
		PM ₁₀	0.51	2.25		24	
		PM _{2.5}	0.17	0.76			

Permit Number: 103626/PSDTX1296/N164				Issuance Date: 9/16/13			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lb/hr	TPY**	Spec. Cond.	Spec. Cond.	Spec. Cond.
MEOHMSS	Methanol MSS	VOC	194.31	0.44	3 26 27 28	3 24 25 26 27 28 29	3
MEOHENG	Methanol Engine	VOC	0.88	0.04	3	<u>3</u>	3
		NO _x	0.77	0.04		31	
		CO	0.88	0.04			
		PM	0.04	0.01			
55T9801ST or 55T9801TEMP	Methanol Scrubber of Temporary Methanol Scrubber	VOC	12.91	3.47	3 5 19	3 5 7 19 24	3 19

Footnotes:

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - PM_{2.5} - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - CO - carbon monoxide
 - NH₃ - Ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Major NSR Summary Table

Permit Number: GHGPSDTX25 (Issuance Date: 12/12/13)

Emission Point No.	Source Name	Air Contaminant Name ⁽⁹⁾	Emission Rates		Monitoring and Testing Requirements Spec. Cond.	Recordkeeping Requirements Spec. Cond.	Reporting Requirements Spec. Cond.
			TPY ⁽²⁾	TPY CO ₂ e ^{(1),(2),(3)}			
REFORM	Reformer Furnace	CO ₂	532,787	533,334	III.A.1 III.B.1, III.B.2 V.A, V.B	III.A.1 III.B.1 IV.A.1 IV.A.2 IV.A.3 V.B	IV.A.3 V.B V.C V.E
		CH ₄	11				
		N ₂ O	1.1				
MEOHFLR	Methanol Flare	CO ₂	1,092	1,366	III.A.2	III.A.2 IV.A.1 IV.A.2 IV.A.3	IV.A.3
		CH ₄	12				
		N ₂ O	0.07				

Emission Point No.	Source Name	Air Contaminant Name ⁽⁹⁾	Emission Rates	Emission Point No.	Monitoring and Testing Requirements Spec. Cond.	Recordkeeping Requirements Spec. Cond.	Reporting Requirements Spec. Cond.
			TPY ⁽²⁾	TPY CO ₂ e ^{(1), (2), (3)}			
MEOH MSS	Methanol MSS	CO ₂	--	No Numerical Limit Established ⁴		III.A.6 IV.A.1 IV.A.2 IV.A.3	IV.A.3
		CH ₄	No Numerical Limit Established ⁴				
		N ₂ O	--				
MEOH FUG	Fugitives	CO ₂	No Numerical Limit Established ⁵	No Numerical Limit Established ⁵	III.A.3	III.A.3 IV.A.1 IV.A.2 IV.A.3	III.A.3 IV.A.3
		CH ₄	No Numerical Limit Established ⁵				
		N ₂ O	--				

Emission Point No.	Source Name	Air Contaminant Name (9)	Emission Rates	Emission Point No.	Monitoring and Testing Requirements Spec. Cond.	Recordkeeping Requirements Spec. Cond.	Reporting Requirements Spec. Cond.
			TPY (2)	TPY CO ₂ e ^{(1),(2),(3)}			
MEOHENG	Emergency Generator or Engine	CO ₂	33.3 ⁶	33.3 ⁶		III.A.4 IV.A.1 IV.A.2 IV.A.3	IV.A.3
		CH ₄	No Numerical Limit Established ⁷				
		N ₂ O	No Numerical Limit Established ⁷				
MEOHMT	Cooling Tower	CO ₂	--	No Numerical Limit Established ⁸	III.A.5	III.A.5 IV.A.1 IV.A.2 IV.A.3	IV.A.3
		CH ₄	No Numerical Limit Established ⁸				
		N ₂ O	--				
-	Total Emissions ⁹	CO ₂	533,927	535,218	N/A	N/A	N/A
		CH ₄	46				
		N ₂ O	1.1				

Footnotes:

- (1) Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average basis
- (2) The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.
- (3) Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
- (4) GHG emissions from MSS activities that cannot be controlled by a flare are represented by EPN MEOHMSS. These emissions are from the venting of equipment and the isolation of pipe sections for the purposes of maintenance, startup, and shutdown operations. These emissions are estimated to be no more than 0.9 TPY of CH₄ and 19.4 TPY of CO₂e. The emission limit will be a design/work practice standard as specified in the permit.
- (5) Fugitive process emissions from EPN MEOHFUG are estimated to be 3 TPY CO₂, 10 TPY of CH₄ and 213 TPY CO₂e. The emission limit will be a design/work practice standard as specified in the permit.
- (6) The limits associated with MEOHENG are for non-emergency use of the engine.
- (7) All values indicated as “No Numerical Limit Established” are less than 0.01 TPY with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
- (8) Cooling Tower emissions from EPN MEOHMT are estimated to be 12 TPY of CH₄, and 252 TPY CO₂e. The emission limit will be a design/work practice standard as specified in the permit.
- (9) The total emissions for CH₄ and CO₂e include the PTE for process fugitive emissions, uncontrolled MSS, and cooling tower emissions of CO₂ and CH₄. These totals are given for informational purposes only and do not constitute emission limits.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AIR QUALITY PERMIT



A Permit Is Hereby Issued To
Celanese Ltd.
Authorizing the Construction and Operation of
Celanese Clear Lake Plant
Located at Pasadena, Harris County, Texas
Latitude 29° 37' 17" Longitude 95° 03' 50"

Permit: 103626, PSDTX1296 and N164

Issuance Date : September 16, 2013

Renewal Date: September 16, 2023


For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code 116.116 (30 TAC 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC 116.115(b)(2)(B)(iii)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with 30 TAC 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in Texas Health and Safety Code (THSC) 382.003(3) or violate THSC 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.

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Emission Limits

1. This permit authorizes emissions only from those points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating requirements specified in the special conditions.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rate table (MAERT). Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions, with the exception of those in fuel gas/lube oil service.
3. Federal Applicability
 - A. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
 - (1) Subpart A, General Provisions.
 - (2) Subpart Kb, Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.
 - (3) Subpart VVa, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which construction, reconstruction, or modification commenced after November 7, 2006.
 - B. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories Title 40 Code of Federal Regulations Part 61 (40 CFR Part 61):
 - (1) Subpart A, General Provisions.
 - (2) Subpart FF, National Emission Standard for Benzene Waste Operations, recordkeeping only.

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- C. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:
- (1) Subpart A, General Provisions.
 - (2) Subpart F, Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry.
 - (3) Subpart G, Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry Process Vents, Storage Vessels, Transfer Operations, and Wastewater.
 - (4) Subpart H, Organic Hazardous Air Pollutants for Equipment Leaks.
 - (5) Subpart ZZZZ, Organic Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).
 - (6) Subpart DDDDD, Organic Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.
- D. If any condition of this permit is more stringent than the applicable regulations in this condition, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

Operational Limitations

4. The following confidential limits apply:

Parameter	Application reference
Maximum annual throughput to the methanol storage tanks	The amounts referenced on the appropriate Storage Tank Summary Tables (Tables 7a) found in Appendix C, Equipment Tables and the Loading Estimated Emission Rates calculation sheet found in Appendix A, Emission Calculations, of the confidential portion of the permit application dated June 21, 2013.

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Parameter	Application reference
Methanol Loading	The Loading Estimated Emission Rates calculation sheet found in Appendix A, Emission Calculations, of the confidential portion of the permit application dated March 10, 2010 for NSR Permit 53313.

5. Scrubber T-9801 (EPN T9801ST) shall operate with no less than a 99 percent methanol removal efficiency in controlling emissions from Methanol Storage Tanks V-340, V-341, V-342, V-344, V-345, and V-9802. The vent flow rate of methanol vapors and water flow rate to Scrubber T-9801 shall be continuously monitored and recorded. Compliance with the performance parameters established during the scrubber test, in accordance with Special Condition No. 19D will be determined on an hourly averaging period to ensure that the minimum required 99 percent methanol removal efficiency is obtained. The water flow rate through the Methanol Scrubber T-9801 shall be no less than 30 gallons per minute (gpm) until the initial stack test over any hourly averaging period. After the initial stack test, the water flow rate shall be no less than the average flow rate during the last stack test over any hourly averaging period. When Scrubber T-9801 is out of operation for maintenance, the emissions shall be routed to a temporary scrubber (T9801TEMP) achieving the same removal efficiency.

Loss of valid data due to periods of monitor breakdown (including loss of connectivity to data storage system), out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that the methanol tank farm scrubber system operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

6. Methanol MSS Flare (EPN: MEOHFLR) shall be designed and operated in accordance with the following requirements. The following conditions only apply when the flare is receiving vent streams:
- A. The flare systems shall be designed such that the combined assist natural gas and waste stream to each flare meets the 40 CFR § 60.18 specifications of minimum heating value and maximum tip velocity under normal, upset, and maintenance flow conditions.

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The heating value and velocity requirements shall be satisfied during operations authorized by this permit.

- B. The flare shall be operated with a flame present at all times and/or have a constant pilot flame. The pilot flame shall be continuously monitored by a thermocouple, an infrared monitor, or ultraviolet monitor. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications
- C. The flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. The permit holder shall install a continuous flow monitor and composition analyzer that provide a record of the vent stream flow and composition total VOC or BTU content to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour.

The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be $\pm 5.0\%$, temperature monitor shall be $\pm 2.0\%$ at absolute temperature, and pressure monitor shall be ± 5.0 mm Hg;

Calibration of the analyzer shall follow the procedures and requirements of Section 10.0 of 40 CFR Part 60, Appendix B, Performance Specification 9, as amended through October 17, 2000 (65 FR 61744), except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 CFR §60.18(f)(3) as amended through October 17, 2000 (65 FR 61744).

The monitors and analyzers shall operate as required by this section at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit

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velocity determined in accordance with 40 CFR §60.18(f)(4) shall be recorded at least once every 15 minutes. Hourly mass emission rates shall be determined and recorded using the above readings and the emission factors used in the permit application dated June 21, 2013.

- E. Fuel gas combusted at this facility shall be sweet natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet.

Storage and Loading Operations

- 7. The control requirements specified in paragraphs A-D of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 pound per square inch, absolute (psia) at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons. The following Storage Tanks are subject to the requirements of this condition: V-340, V-341, V-342, V-344, V-345, and V-9802.

- A. An internal floating deck or “roof” or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.

The T9801ST or T9801TEMP (Methanol Storage Tank Scrubber System) is an approved equivalent control method in lieu of a floating roof for Tank Nos. V-340, V-341, V-342, V-344, and V-345.

In addition to the internal floating roof, the vent from V-9802, V-341 and V-342, shall be routed to the T-9801 Scrubber (EPN T9801ST) or a temporary scrubber (EPN T9801TEMP).

If V-341 and V-342 are not modified per 30 TAC 116.12, then Celanese may submit a permit amendment to exclude the LAER requirements of an IFR routed to a control device for these tanks, and may remain fixed roof vessels routed to a control device.

- B. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

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- C. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in Title 40 Code of Federal Regulations § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.
- D. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated May 1, 2010 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
- E. Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- F. For purposes of assuring compliance with the permitted methanol emission limitations, the holder of this permit shall maintain a monthly emissions record which describes calculated emissions of methanol from all storage tanks and loading operations. The record shall include tank or loading point identification number, control method used, tank or vessel capacity in gallons, methanol molecular weight, methanol monthly average temperature in degrees Fahrenheit, methanol vapor pressure at the monthly average material temperature in psia, and methanol throughput for the previous month and year-to-date. Records of methanol monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures. These records shall be maintained at the plant site for at least five years and be made available to representatives of the TCEQ upon request.
- G. The permit holder may maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank in lieu of the records required by Paragraph F of this condition.

Emissions for tanks shall be calculated using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."

- 8. All methanol tank truck/railcar loading operations shall utilize a closed-dome loading system with all vapors generated during loading operations routed to

the Acrylates I Incinerators or Acrylates II Incinerators (under Permit Number 260).

Cooling Tower

9. The VOC associated with cooling tower water shall be monitored monthly with an air stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. The results of the monitoring, cooling water flow rate, and maintenance activities on the cooling water system shall be recorded. The monitoring results and cooling water hourly mass flow rate shall be used to determine cooling tower hourly VOC emissions. The rolling 12 month cooling water emission rate shall be recorded on a monthly basis and be determined by summing the VOC emissions between VOC monitoring periods over the rolling 12 month period. The emissions between VOC monitoring periods shall be obtained by multiplying the total cooling water mass flow between cooling water monitoring periods by the higher of the 2 VOC monitored results.

The holder of this permit shall install, calibrate, and maintain a conductivity probe to continuously measure the conductivity of the cooling water. Cooling water shall be sampled once a week for total dissolved solids (TDS) for a period of one month to establish a correlation between TDS and conductivity. The correlation shall be reported to the TCEQ Regional Director within one month of being established. The data shall result from collection of water samples from the cooling tower feed water and represent the water being cooled in the tower. Water samples should be capped upon collection, and transferred to a laboratory area for analysis. The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. The analysis method for Conductivity during the establishment of the correlation shall be ASTM D1125-95A or SM2510 B. Use of alternative method shall be approved by the TCEQ Regional Director prior to its implementation. The on-line analyzer used to continuously monitor the conductivity after establishment of the correlation need not strictly adhere to ASTM D1125-95A or SM2510 B provided that readings from the on-line analyzer have been validated using grab samples analyzed by the approved methods.

PM₁₀ and PM_{2.5} emissions shall be determined from the conductivity, the drift and the circulation rate of the cooling tower water, and PM₁₀ and PM_{2.5} speciation factors used in the application and recorded on a monthly basis

Reformer

10. Except during periods of planned maintenance, start-up, or shutdown, concentrations of NH_3 from the Reformer (EPN REFORM) shall not exceed 10 ppmvd, when corrected to 3 percent oxygen (O_2), either on a:
 - A. 24-hour rolling average, if compliance is determined by the procedures identified in Special Condition No. 14.A., 14.D., 14.E., or other continuous monitoring method; or on
 - B. a block-one-hour average, if compliance is determined by the procedures identified in Special Condition No. 14.B., 14.C., or other periodic monitoring method.
11. The permit holder shall install, calibrate, and maintain continuous emission monitoring system (CEMS) to measure and record the in-stack concentrations of CO , O_2 , and NO_x from Reformer Stack (EPN REFORM). A single analyzer may be shared between exhaust stacks as long as minimum data requirements are met.
 - A. All CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or an acceptable alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Permitting, and Registration, Air Permits Division in Austin for the requirements to be met.
 - B. Each system shall be zeroed and spanned daily, and corrective action taken when the 24 hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

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- C. All CGA exceedances of ± 15 percent accuracy and any CEMS downtime, except for zero and span checks, shall be reported semiannually to the TCEQ Houston Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the TCEQ Houston Regional Director. The CEMS shall be maintained such that accurate monitoring data are provided at least 95 percent of the time that the reformer is operating.
- D. The CEMS monitoring data for CO, O₂, and NO_x shall be reduced to 3-hour average concentrations for NO_x, and 24 hour average for CO, at least once every day using a minimum of four equally-spaced data points from each one-hour period. The individual average CO and NO_x concentrations shall be reduced to units of the permit allowable emission rate in lbs/hr and cumulative tons per year. Hourly average concentrations from EPNs REFORM shall be summed to tpy and used to determine compliance with the emission limits of this permit.

The measured hourly average concentration from the CEMS shall be multiplied by the stack flow rate determined by the fuel flow to determine the hourly emission rate.

- E. All monitoring data and quality-assurance data shall be maintained by the source for a period of five years and shall be made available to the TCEQ Executive Director or his designated representative upon request. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions and emission limitations of this permit.
 - F. The TCEQ Houston Regional Office shall be notified at least 21 days prior to any required relative accuracy test audit for this permit in order to provide them the opportunity to observe the testing.
- 12. If any emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as reasonably possible.
 - 13. The holder of this permit shall additionally install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas and process gas fuel consumption of the reformer. The systems shall be accurate to ± 5.0 percent of the unit's maximum flow.
 - 14. The NH₃ concentration in the Exhaust Stacks (EPNs REFORM) shall be monitored, tested or calculated according to one of the methods listed below and shall be monitored, tested or calculated according to the frequency listed below. Determination of NH₃ slip is only required when the SCR unit is in operation.

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- A. The holder of this permit may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of NH_3 . The NH_3 concentrations shall be corrected and reported in accordance with Special Condition No. 10.
- B. As an approved alternative, the NH_3 slip may be measured using a sorbent or stain tube device specific for NH_3 measurement in the 5 to 10 parts per million (ppm) range. The frequency of sorbent or stain tube testing shall be daily for the first 60 days of operation, after which, the frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amount of NH_3 from being introduced in the SCR unit and when operation of the SCR unit has been proven successful with regard to controlling NH_3 slip. Daily sorbent or stain tube testing shall resume when the catalyst is within 30 days of its useful life expectancy. The NH_3 concentration shall be recorded after each measurement in compliance with Special Condition No. 10.
- C. If the sorbent or stain tube testing indicates an ammonia slip concentration which exceeds 5 ppm at any time, the permit holder shall begin NH_3 testing by either the Phenol-Nitroprusside Method, the Indophenol Method, or EPA Conditional Test Method (CTM) 27 on a quarterly basis, in addition to the weekly sorbent or stain tube testing. The quarterly testing shall continue until such time as the SCR unit catalyst is replaced; or if the quarterly testing indicates NH_3 slip is 4 ppm or less, the Phenol-Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 5 ppm NH_3 slip or greater. These results shall be recorded after each measurement in compliance with Special Condition No. 10.
- D. As an approved alternative to sorbent or stain tube testing or an NH_3 CEMS, the permit holder may install and operate a second NO_x CEMS probe located upstream of the SCR and the stack NO_x CEMS, which may be used in association with the SCR efficiency and NH_3 injection rate to estimate NH_3 slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SCR unit. The calculated emissions shall be recorded and used to determine compliance with Special Condition No. 10.
- E. As an approved alternative to sorbent or stain tube testing, NH_3 CEMS, or a second NO_x CEMS, the permit holder may install and operate a dual stream system of NO_x CEMS at the exit of the SCR. One of the exhaust streams would be routed, in an unconverted state, to one NO_x CEMS and the other exhaust stream would be routed through a NH_3 converter to convert NH_3 to NO_x and then to a second NO_x CEMS. The NH_3 slip

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concentration shall be calculated from the delta between the two NO_x CEMS readings (converted and unconverted). These results shall be recorded and used to determine compliance with Special Condition No. 10.

- F. Any other method used for measuring NH₃ slip shall require prior approval from the TCEQ Air Permits Division in Austin.

Anhydrous Ammonia (NH₃)

15. The permit holder shall maintain prevention and protection measures for the NH₃ storage system which includes (but is not limited to) the following:
 - A. The NH₃ storage tank areas will be marked and secured so as to protect the NH₃ storage tank from accidents that could cause a rupture.
 - B. Water spray systems shall be installed around each tank and loading area to mitigate any airborne releases of NH₃. The water spray system must activate when an ambient safety sensor level of 200 ppmv of NH₃ is detected.
16. In the event of a release of the NH₃ from the liquid fill line, pressure vessel due to over pressurization, or process line to the selective catalytic reduction (SCR) system, or any other accidental release of NH₃, the permit holder shall follow the mitigation procedures set out in the Plant Emergency Plan.
17. In addition to the requirements of Special Condition Nos. 15 and 16, the permit holder shall maintain the piping and valves in NH₃ service as follows:
 - A. All operating practices and procedures relating to the handling and storage of NH₃ shall conform to the safety recommendations specified for that compound by guidelines of the American National Standards Institute and the Compressed Gas Association or equivalent.
 - B. Audio, olfactory, and visual checks for NH₃ leaks within the operating area shall be made every 12 hours.
 - C. As soon as practicable, following the detection of a leak, plant personnel shall take one or more of the following actions:
 - (1) Locate and isolate the leak, if necessary.
 - (2) Commence repair or replacement of the leaking component.
 - (3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

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18. Sampling ports and platform(s) shall be incorporated into the design of the reformer stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

Initial Compliance Testing

19. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Reformer (EPN REFORM), and the T-9801 scrubber (EPN T9801ST). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.
 - A. The TCEQ Houston Regional Office shall be contacted as soon as testing is scheduled but not less than 30 days prior to sampling to schedule a pretest meeting.

The notice shall include:

- (1) Date for pretest meeting.
- (2) Date sampling will occur.
- (3) Name of firm conducting sampling.
- (4) Type of sampling equipment to be used.
- (5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

A written proposed description of any deviation from sampling procedures specified in permit conditions or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Houston Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for New Source Performance Standards (NSPS) testing which must have the EPA approval shall be submitted to the TCEQ Air Permits Division in Austin.

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- B. Air contaminants emitted from the Reformer (REFORM) to be tested for including (but are not limited to) NO_x, CO, NH₃, VOC, opacity, and O₂. NO_x, CO, NH₃, and VOC compliance will be determined based on the hourly emission demonstration. In addition, ammonia concentrations from the reformer shall be corrected to 3 percent O₂.

Air contaminants emitted from the T-9801 scrubber to be tested for include (but are not limited to) methanol.

Testing shall be performed to demonstrate a minimum 99% VOC removal efficiency for the Reformer or 10 ppmv VOC outlet concentration at 3% oxygen.

Testing shall also be performed to demonstrate a minimum 99% VOC removal efficiency in the stack for the T-9801 scrubber.

- C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.
- D. The permitted methanol storage tanks shall be filled at a cumulative filling rate to achieve a maximum vent flow rate of 120,000 scfh during stack emission testing of the T-9801 Scrubber. Nitrogen supplement in the fill lines may be used to assist in achieving the maximum vent flow rate. If the maximum vent rate cannot be maintained during testing, then future vent rates may be limited to the rates established during testing. Additional stack testing may be required when higher vent rates are achieved.
- E. Copies of the final sampling report shall be forwarded to the TCEQ within 90 days after sampling is completed. Sampling reports shall comply with the enclosed provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Houston Regional Office.

One copy to any appropriate local programs.

Piping, Valves, Pumps, Agitators, and Compressors - Intensive Directed Maintenance in VOC Service- 28LAER (for components associated with methanol production facilities and V-9802)

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20. Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment in VOC service greater than 10 percent:
- A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- i. piping and instrumentation diagram (PID);
 - ii. a written or electronic database or electronic file;
 - iii. color coding;
 - iv. a form of weatherproof identification; or
 - v. designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping

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connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance.

Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through. In addition, all connectors shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program in accordance with items F thru J of this special condition.

In lieu of the monitoring frequency specified above, connectors may be monitored on a semiannual basis if the percent of connectors leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Connectors may be monitored on an annual basis if the percent of connectors leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of connectors leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

The percent of connectors leaking used in paragraph B shall be determined using the following formula:

$$(Cl + Cs) \times 100 / Ct = Cp$$

Where:

Cl = the number of connectors found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.

Cs = the number of connectors for which repair has been delayed and are listed on the facility shutdown log.

Ct = the total number of connectors in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including non-accessible and unsafe-to-monitor connectors.

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C_p = the percentage of leaking connectors for the monitoring period.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the isolation of equipment for hot work or the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- i. a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- ii. the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once by the end of the 72 hours period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings of 500 ppmv and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Non-accessible valves shall be monitored by leak-checking for fugitive emissions at least annually using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

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The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture, of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

- G. All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

All other pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly.

- H. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be

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identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

- I. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- J. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS), and does not constitute approval of alternative standards for these regulations.
- K. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

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- L. The percent of valves leaking used in paragraph K shall be determined using the following formula:

$$(Vl + Vs) \times 100 / Vt = Vp$$

Where:

- Vl = the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
- Vs = the number of valves for which repair has been delayed and are listed on the facility shutdown log.
- Vt = the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor valves.
- Vp = the percentage of leaking valves for the monitoring period.
- M. Any component found to be leaking by physical inspection (i.e., sight, sound, or smell) shall be repaired or monitored with an approved gas analyzer within 15 days to determine whether the component is leaking in excess of 500 ppmv of VOC. If the component is found to be leaking in excess of 500 ppmv of VOC, it shall be subject to the repair and replacement requirements contained in this special condition.

Exemptions for Piping, Valves, Pumps, Agitators, and Compressors - Intensive Directed Maintenance in VOC Service- 28LAER

21. A. After a plant turnaround, new and reworked piping connections that are not gas or hydraulically tested prior to returning to service shall be monitored for leaks using an approved gas analyzer within 30 days of the component being returned to service.
- B. As an alternative to comparing the daily emission rate of the components on the delay of repair (DOR) list to the total emissions from a unit shutdown per the requirements of Special Condition No. 20, Subparagraph H, the cumulative hourly emission rate of all components on the DOR list may be compared to ten percent of the fugitive short term allowable on the Maximum Allowable Emission Rate Table in order to determine if the TCEQ Regional Director and any local program is to be notified. In addition, the hourly emission rates of each specific compound on the DOR list must be

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less than ten percent of the speciated hourly fugitive emission rate of the same compound.

- C. Open ended valves or lines open-ended valves or lines that present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system is exempt from the monitoring and leak requirements of Special Condition 20, Subparagraph H.
- D. No later than the first scheduled quarterly monitoring after initial installation all new or reworked connections shall be gas-tested or hydraulically-tested at no less than normal operating pressure and adjustments made as necessary to obtain leak-free performance.

Piping, Valves, Connectors, Pumps, and Compressors in Volatile Organic Compounds in VOC Service - 28VHP (for components associated with tanks 55V340, 341, 342, 344, 345, and existing Methanol loading facilities)

- 22. Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment
 - A. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pounds per square inch, absolute (psia) at 68 degrees Fahrenheit or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made available upon request.

The exempted components may be identified by one or more of the following methods:

- i. piping and instrumentation diagram (PID);
 - ii. a written or electronic database
 - iii. color coding;
 - iv. a form of weatherproof identification; or
 - v. designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

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- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request. The non-accessible valves may be identified by one or more of the methods described in subparagraph A above.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period;

- i. a cap, blind flange, plug, or second valve must be installed on the line or valve; or
- ii. the open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once at the end of the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other situations, leaks are indicated by readings 500 ppmv above background and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

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- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown. A check of the reading of the pressure-sensing device to verify disc integrity shall be performed weekly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR part 60, appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

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- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump and compressor seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained.
- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC 115.782 (c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC 115.782 (c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
- J. The Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
- K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart H, may be used in lieu of Items F through G of this condition.

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- L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants (NESHAPS) and does not constitute approval of alternative standards for these regulations.

Exemptions for Piping, Valves, Connectors, Pumps, and Compressors in Volatile Organic Compounds in VOC Service - 28VHP

- 23. A. After a plant turnaround, new and reworked piping connections that are not gas or hydraulically tested prior to returning to service shall be monitored for leaks using an approved gas analyzer within 30 days of the component being returned to service.
- B. As an alternative to comparing the daily emission rate of the components on the delay of repair (DOR) list to the total emissions from a unit shutdown, the cumulative hourly emission rate of all components on the DOR list may be compared to ten percent of the fugitive short term allowable on the Maximum Allowable Emission Rate Table in order to determine if the TCEQ Regional Director and any local program is to be notified. In addition, the hourly emission rates of each specific compound on the DOR list must be less than ten percent of the speciated hourly fugitive emission rate of the same compound.

Recordkeeping

- 24. The following shall be kept:
 - A. Records of the vent flow rate of methanol vapors to Scrubber T-9801 and the scrubber's corresponding water makeup rate to demonstrate compliance with the minimum required 99 percent methanol removal efficiency specified in Special Condition No. 5.
 - B. Storage Tank throughput records indicating net throughput in accordance with Special Condition 4.C. Records of all floating roof seal inspections, seal integrity determinations, and any corrective actions taken.
 - C. Leak detection and repair program records in accordance with the 28LAER permit condition No. 20 and 28VHP in No. 22.

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- D. Copies of Table 7 as mentioned in Special Condition No. 4 shall be kept with the permit.
- E. Records of stack testing results in accordance with Special Condition No. 19.
- F. Records required by Special Condition No. 9 for cooling tower monitoring.
- G. Records required by maintenance, start-up and shutdown (MSS) Special Conditions Nos. 27, 28, 29 and 30.
- H. Records as required by Special Condition No. 31.
- I. Records as required by Special Condition 6 for continuous flare flow and composition or Btu content monitoring.
- J. Records as required by Special Condition 14 for NH₃ concentration in the Exhaust Stack (EPN REFORM).
- K. Records as required by Special Condition 17 for NH₃ checks and corrective actions for leaks.

Maintenance, Startup and Shutdown

25. This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities summarized in the MSS Activity Summary (Attachment C) attached to this permit.

Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.

Routine maintenance activities, as identified in Attachment B may be tracked through the work orders or equivalent. Emissions from activities identified in Attachment B shall be calculated using the number of work orders or equivalent that month and the emissions associated with that activity identified in the permit application.

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The performance of each planned MSS activity not identified in Attachments A or B and the emissions associated with it shall be recorded and include at least the following information:

- A. the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;
- B. the type of planned MSS activity and the reason for the planned activity;
- C. the common name and the facility identification number, if applicable, of the facilities at which the MSS activity and emissions occurred;
- D. the date and time of the MSS activity and its duration;
- E. the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

- 26. Process units and facilities, with the exception of those identified in Special Conditions 28, 29, and Attachment A shall be depressurized, emptied, degassed, and placed in service in accordance with the following requirements.
 - A. The process equipment shall be depressurized to a control device or a controlled recovery system prior to venting to atmosphere, degassing, or draining liquid. Equipment that only contains material that is liquid with VOC partial pressure less than 0.50 psi at the normal process temperature and 95°F may be opened to atmosphere and drained in accordance with paragraph C of this special condition. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded.
 - B. If mixed phase materials must be removed from process equipment, the cleared material shall be routed to a knockout drum or equivalent to allow for managed initial phase separation. If the VOC partial pressure is greater than 0.50 psi at either the normal process temperature or 95°F, any vents in the system must be routed to a control device or a controlled recovery system. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the

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temperature is recorded. Control must remain in place until degassing has been completed or the system is no longer vented to atmosphere.

- C. All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel or closed liquid recovery system unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
- D. If the VOC partial pressure is greater than 0.50 psi at the normal process temperature or 95°F, facilities shall be degassed using good engineering practice to ensure air contaminants are removed from the system through the control device or controlled recovery system to the extent allowed by process equipment or storage vessel design. The vapor pressure at 95°F may be used if the actual temperature of the liquid is verified to be less than 95°F and the temperature is recorded. The facilities to be degassed shall not be vented directly to atmosphere, except as necessary to establish isolation of the work area or to monitor VOC concentration following controlled depressurization. The venting shall be minimized to the maximum extent practicable and actions taken recorded.
 - (1) For MSS activities identified in Attachment B, the following option may be used in lieu of (2) below. The facilities being prepared for maintenance shall not be vented directly to atmosphere until the VOC concentration has been verified to be less than 10 percent of the lower explosive limit (LEL) per the site safety procedures.
 - (2) The locations and/or identifiers where the purge gas or steam enters the process equipment or storage vessel and the exit points for the exhaust gases shall be recorded (process flow diagrams [PFDs] or piping and instrumentation diagrams [P&IDs] may be used to demonstrate compliance with the requirement). If the process equipment is purged with a gas, two system volumes of purge gas must have passed through the control device or controlled recovery system before the vent stream may be sampled to verify acceptable-VOC concentration prior to uncontrolled venting. The VOC sampling and analysis shall be performed using an instrument meeting the requirements of Special Condition 27. The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel

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being purged. If there is not a connection (such as a sample, vent, or drain valve) available from which a representative sample may be obtained, a sample may be taken upon entry into the system after degassing has been completed. The sample shall be taken from inside the vessel so as to minimize any air or dilution from the entry point. The facilities shall be degassed to a control device or controlled recovery system until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. Documented site procedures used to de-inventory equipment to a control device for safety purposes (i.e., hot work or vessel entry procedures) that achieve at least the same level of purging may be used in lieu of the above.

E. Gases and vapors with VOC partial pressure greater than 0.50 psi may be vented directly to atmosphere if all the following criteria are met:

- (1) It is not technically practicable to depressurize or degas, as applicable, into the process.
- (2) There is not an available connection to a plant control system (flare).
- (3) There is no more than 50 lb of air contaminant to be vented to atmosphere during shutdown or startup, as applicable.

All instances of venting directly to atmosphere per Special Condition 26.E must be documented when occurring as part of any MSS activity. The emissions associated with venting without control must be included in the work order or equivalent for those planned MSS activities identified in Attachment B.

F. In lieu of A, B and D, equipment that has contained only water-soluble compounds may be opened as necessary to add cleaning equipment, then closed and water washed or steamed. It can then be opened without restriction after liquid remaining in the equipment has a VOC partial pressure less than 0.02 psia. The liquid VOC partial pressure may initially either be estimated based on the estimated volume of liquid remaining and the volume of water added, or by sampling. Subsequent similar activities can use documented site procedures used to de-inventory and wash/steam equipment to achieve the same level of clearing. Liquid will be drained in accordance with paragraph C of this special condition.

27. Air contaminant concentration shall be measured using an instrument/detector meeting one set of requirements specified below.

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- A. VOC concentration shall be measured using an instrument meeting all the requirements specified in EPA Method 21 (40 CFR 60, Appendix A) with the following exceptions:

- (1) The instrument shall be calibrated within 24 hours of use with a calibration gas such that the response factor (RF) of the VOC (or mixture of VOCs) to be monitored shall be less than 2.0. The calibration gas and the gas to be measured, and its approximate (RF) shall be recorded. If the RF of the VOC (or mixture of VOCs) to be monitored is greater than 2.0, the VOC concentration shall be determined as follows:

$$\text{VOC Concentration} = \text{Concentration as read from the instrument} \times \text{RF}$$

In no case should a calibration gas be used such that the RF of the VOC (or mixture of VOCs) to be monitored is greater than 5.0.

- (2) Sampling shall be performed as directed by this permit in lieu of section 8.3 of Method 21. During sampling, data recording shall not begin until after two times the instrument response time. The date and time shall be recorded, and VOC concentration shall be monitored for at least 5 minutes, recording VOC concentration each minute. As an alternative the VOC concentration may be monitored over a five-minute period with an instrument designed to continuously measure concentration and record the highest concentration read. The highest measured VOC concentration shall be recorded and shall not exceed the specified VOC concentration limit prior to uncontrolled venting.

- B. Colorimetric gas detector tubes may be used to determine air contaminant concentrations if they are used in accordance with the following requirements.

- (1) The air contaminant concentration measured as defined in (3) is less than 80 percent of the range of the tube and is at least 20 percent of the maximum range of the tube.
- (2) The tube is used in accordance with the manufacturer's guidelines.
- (3) At least 2 samples taken at least 5 minutes apart must satisfy the following prior to uncontrolled venting:

$$\text{measured contaminant concentration (ppmv)} < \text{release concentration.}$$

Where the release concentration is:

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10,000* mole fraction of the total air contaminants present that can be detected by the tube.

The mole fraction may be estimated based on process knowledge. The release concentration and basis for its determination shall be recorded.

Records shall be maintained of the tube type, range, measured concentrations, and time the samples were taken.

C. Lower explosive limit measured with a lower explosive limit detector.

(1) The detector shall be calibrated within 30 days of use with a certified pentane gas standard at concentration of 58% approved of the lower explosive limit (LEL) for pentane for a catalytic bead sensor. Records of the calibration date/time and calibration result (pass/fail) shall be maintained.

(2) A functionality test shall be performed on each detector within 24 hours of use with a certified gas standard at concentration of 58% of the LEL for pentane for a catalytic bead sensor. The LEL monitor shall read no lower than 90% of the calibration gas certified value. Records, including the date/time and test results, shall be maintained.

(3) A certified methane gas standard equivalent to concentration of 29% of the LEL for methane may be used for calibration and functionality tests provided that the LEL response is within 95% of that for pentane.

28. This permit authorizes emissions from EPN MEOHMSS for V-9802, V-341 and V-342 during planned floating roof landings. Tank roofs may only be landed for changes of tank service or tank inspection/maintenance as identified in the permit application. These emissions are subject to the maximum allowable emission rates indicated on the MAERT. The following requirements apply to storage tank clearing.

A. The tank liquid level shall be continuously lowered after the tank floating roof initially lands on its supporting legs until the tank has been drained to the maximum extent practicable without entering the tank. Liquid level may be maintained steady for a period of up to two hours if necessary to allow for valve lineups and pump changes necessary to drain the tank. This requirement does not apply where the vapor from a floating roof is routed to control or a controlled recovery system during this process.

B. If the VOC partial pressure of the liquid previously stored in the tank is greater than 0.50 psi at 95°F, tank refilling or degassing of the vapor space

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under the landed floating roof must begin within 24 hours after the tank has been drained unless the vapor under the floating roof is routed to control or a controlled recovery system during this period. The tank shall not be opened except as necessary to set up for degassing and cleaning. Storage tanks with liquid capacities less than 100,000 gallons may be degassed without control if the VOC partial pressure of the standing liquid in the tank has been reduced to less than 0.02 psia prior to ventilating the tank. Controlled degassing of the vapor space under landed roofs shall be completed as follows:

- (1) Any gas or vapor removed from the vapor space must be routed to a control device or a controlled recovery system and controlled degassing must be maintained until the VOC concentration is less than 10,000 ppmv or 10 percent of the LEL. The locations and identifiers of vents other than permanent roof fittings and seals, control device or controlled recovery system, and controlled exhaust stream shall be recorded. There shall be no other gas/vapor flow out of the vapor space when degassing to the control device or controlled recovery system.
 - (2) The vapor space shall be vented using good engineering practice to ensure air contaminants are flushed out of the tank through the control device or controlled recovery system to the extent allowed by the storage tank design.
 - (3) A sample of the vapor space of the vessel may occur before any purge gas is added. If the VOC concentration exceeds acceptable limits a volume of purge gas equivalent to twice the volume of the vapor space under the floating roof must have passed through the control device or into a controlled recovery system, before the vent stream may be sampled to verify acceptable VOC concentration added. The measurement of purge gas volume shall not include any make-up air introduced into the control device or recovery system. The VOC sampling and analysis shall be performed as specified in Special Condition 27 if the storage tank does not have low vapor pressure liquid added.
 - (4) The sampling point shall be upstream of the inlet to the control device or controlled recovery system. The sample ports and the collection system must be designed and operated such that there is no air leakage into the sample probe or the collection system downstream of the process equipment or vessel being purged.
- C. The tank shall not be opened or ventilated without control, except as allowed by (1) below until one of the criteria in part D of this condition is satisfied:

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- (1) Minimize air circulation in the tank vapor space.
 - a. One manway may be opened to allow access to the tank to remove or de-volatilize the remaining liquid. Other manways or access points may be opened as necessary to remove or de-volatilize the remaining liquid. Wind barriers shall be installed at all open manways and access points to minimize air flow through the tank.
 - b. Access points shall be closed when not in use
- D. The tank may be opened without restriction and ventilated without control, after all standing liquid has been removed from the tank or the liquid remaining in the tank has a VOC partial pressure less than 0.02 psia. These criteria shall be demonstrated in any one of the following ways.
 - (1) Low VOC partial pressure liquid, including water, that is soluble with the liquid previously stored may be added to the tank to lower the VOC partial pressure of the liquid mixture remaining in the tank to less than 0.02 psia. The estimated volume of liquid remaining in the drained tank and the volume and type of liquid added shall be recorded. The liquid VOC partial pressure may be estimated based on this information and engineering calculations.
- E. The occurrence of each roof landing and the associated emissions shall be recorded and the rolling 12-month tank roof landing emissions shall be updated on a monthly basis. These records shall include at least the following information:
 - (1).for the purpose of estimating emissions, the date, time, and other information specified for each of the following events:
 - a. start and completion of controlled degassing, and total volumetric flow, if applicable
 - b. all standing liquid was removed from the tank or any transfers of low VOC partial pressure liquid to or from the tank including volumes and vapor pressures to reduce tank liquid VOC partial pressure to <0.02 psi,

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- c. if there is liquid in the tank, VOC partial pressure of liquid, start and completion of uncontrolled degassing, and total volumetric flow if purged,
 - (2). the estimated quantity of each air contaminant, or mixture of air contaminants, emitted between events a and c with the data and methods used to determine it. The emissions associated with roof landing activities shall be calculated using the methods described in Section 7.1.3.2 of AP-42 "Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids" dated November 2006 and the permit application.
29. The following requirements apply to frac, or temporary, tanks and vessels used in support of MSS activities.
- A. The exterior surfaces of these tanks/vessels that are exposed to the sun shall be white or aluminum. This requirement does not apply to tanks/vessels that only vent to atmosphere when being filled, sampled, gauged, or when removing material or to tanks/vessels storing material with a VOC vapor pressure <0.02 psia.
 - B. These tanks/vessels must be covered and equipped with fill pipes that discharge within 6 inches of the tank/vessel bottom.
 - C. These requirements do not apply to vessels storing less than 450 gallons of liquid that are closed such that the vessel does not vent to atmosphere except when filling, sampling, gauging, or when removing material.
 - D. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all frac tanks during the previous calendar month and the past consecutive 12 month period. This record must be updated by the last day of the month following. The record shall include tank identification number, dates put into and removed from service, control method used, tank capacity and volume of liquid stored in gallons, name of the material stored, VOC molecular weight, and VOC partial pressure at the estimated monthly average material temperature in psia. Filling emissions for tanks shall be calculated using the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations" and standing emissions determined using: the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks."
 - E. If the tank/vessel is used to store liquid with VOC partial pressure less than 0.10 psi at 95°F, records may be limited to the days the tank is in

service and the liquid stored. Emissions may be estimated based upon the potential to emit as identified in the permit application.

30. Additional occurrences of MSS activities authorized by this permit may be authorized under permit by rule only if conducted in compliance with this permit's procedures, emission controls, monitoring, and recordkeeping requirements applicable to the activity.

Nonattainment New Source Review (NNSR) - Emission Reductions

31. The permit holder shall comply with the following NNSR emission reductions:

- A. EPN REFORM NO_x - The permit holder shall provide total offsets equivalent to 32.38 tons per year (tpy) of NO_x, based on 24.91 tpy of NO_x authorized, at an offset ratio of 1.3:1, prior to the start of operation of the equipment authorized under this permit.

The permit holder shall satisfy the 1:1 portion of the 1.3:1 NO_x emission offset for EPN REFORM through participation in the Mass Emission Cap and Trade (MECT) Program. Starting with the MECT compliance period in which the facility will commence operation, the permit holder shall obtain by the beginning of, hold during, and surrender at the end of each MECT compliance period 24.9 tpy of MECT allowances, regardless of whether the actual NO_x emissions from these facilities are lower than this amount. The TCEQ Emissions Banking and Trading Program must be notified and must verify the use of MECT allowances for the 1:1 portion of the NO_x offset requirement.

If MECT allowances devalue due to future regulatory changes, the permit holder shall acquire additional MECT allowances to hold during and surrender at the end of each MECT compliance period 24.9 tpy of MECT allowances. A total of 24.9 tpy of MECT allowances will be permanently retired upon the permanent shutdown of these facilities.

To satisfy the 0.3 portion of the 1.3:1 of the NO_x emissions offsets for EPN REFORM the permit holder shall permanently retire 7.5 tpy of MECT allowances prior to start of operation of these facilities.

- B. EPN MEOHFLR and MEOHENG NO_x - The permit holder shall provide total offsets equivalent to 26.68 tons per year (tpy) of NO_x, based on 20.52 tpy of NO_x authorized, at an offset ratio of 1.3:1, prior to the start of operation of the equipment authorized under this permit.

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NOx discrete emission reduction credits (DERCs) will be used to cover the 26.7 tpy NOx offset requirement. The permit holder shall use 800.4 tpy of NOx DERCs from DERC Certificate D-3022 to satisfy the 1.3:1 NOx offset requirement for a 30-year period in accordance with 30 TAC §101.376. The permit holder shall acquire additional offsets if the operation of the facility exceeds 30 years.

- C. The permit holder shall provide total offsets equivalent to 47.49 tpy of VOC, based on 36.53 tpy of VOC authorized, at an offset ratio of 1.3:1, prior to the start of operation of the equipment authorized under this permit.

The permit holder shall retire 25.6 tpy of VOC ERCs from TCEQ ERC Certificate Numbers 2387, 2648, 2658, and 2660 to satisfy part of this VOC offset requirement in accordance with 30 TAC §101.306.

NOx discrete emission reduction credits (DERCs) will be used to cover the remaining 21.9 tpy VOC offset requirement and the permit holder must use inter-pollutant trading as follows. Based on the rules under 30 TAC §101.372(a) and the TCEQ and EPA approved NOx to VOC 1:1 inter-pollutant ratio, a total of 657.0 tons of NOx DERCs will be set aside from DERC Certificate D 3022 to satisfy the remaining 1.3:1 VOC offset requirement for a 30-year period. The permit holder must acquire additional offsets if the operation of the facility exceeds 30 years. If the TCEQ establishes a different NOx to VOC ratio in the future, the permit holder may submit a request to alter this permit and revise the 1:1 ratio. Any request to revise the ratio must receive approval from the TCEQ and the EPA. Any final change to the 1:1 ratio would not be applicable to DERCs already used at a 1:1 ratio and would thus be prospective only in nature. Any DERCs set aside based upon the 1:1 ratio that are no longer needed to satisfy the VOC offset requirement if the ratio is revised will be returned to the permit holder for future use. Future rulemaking may affect the value and/or potential use of any returned credits.

Dated September 16, 2013

Permits 103626, PSDTX1296 and N164
Attachment A
Inherently Low Emitting Activities

Activity	Emissions
	VOC
Calibration of analytical equipment	x
Carbon can replacement	x
Instrumentation/analyzer maintenance	x
Meter proving	x
Replacement of analyzer filters and screens	x
Maintenance on water treatment systems (cooling, boiler, potable)	x
Soap and other aqueous based cleaners	x
Cleaning sight glasses	x
Minor equipment clearing	x
Filters	x
Diesel tank and engine repair/replacement	x

Dated September 16, 2013

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Attachment B

Routine Maintenance Activities

Pump repair/replacement

Fugitive component (valve, pipe, flange) repair/replacement

Compressor repair/replacement

Heat exchanger repair/replacement

Vessel repair/replacement

Resin bed clearing and maintenance

Dated September 16, 2013

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Attachment C

MSS Activity Summary

Facilities	Description	Emissions Activity	EPN
all process units	process unit shutdown/depressurize/drain	vent to flare	MEOHFLR
all process units	process unit purge/degas/drain	vent to atmosphere	MOEHMSS
all process units	process unit startup	vent to flare	MEOHFLR
all process units and tanks	preparation for facility/component repair/replacement	vent to flare	MEOHFLR
all process units and tanks	preparation for facility/component repair/replacement	vent to atmosphere	MEOHMSS
all process units and tanks	recovery from facility/component repair/replacement	vent to flare	MEOHFLR
all process units and tanks	recovery from facility/component repair/replacement	vent to atmosphere	MEOHMSS
all process units and tanks	preparation for unit turnaround or facility/component repair/replacement	remove liquid	MEOHMSS
all floating roof tanks	tank roof landing	operation with landed roof	MEOHMSS
all floating roof tanks	degas of tank with landed roof	controlled degassing	MEOHMSS
all tanks	tank cleaning	cleaning activity and solvents	MEOHMSS
see Attachment A	miscellaneous low emitting activities	see Attachment A	MEOHMSS

Dated September 16, 2013

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 103626, PSDTX1296 and N164

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MEOHFUG	Methanol Unit Fugitives (5)	CO	0.26	1.14
		VOC	0.83	3.65
		NH ₃	0.03	0.11
MEOHFLR	MSS Flare	VOC	17.69	2.37
		NO _x	137.88	20.48
		CO	2078.40	348.69
		SO ₂	0.21	0.03
MEOHANALZ	Methanol Unit Analyzer	VOC	0.14	0.61
		CO	0.10	0.42
REFORM	Methanol Reformer	VOC	32.05	23.88
		NO _x	27.28	24.91
		CO	169.34	219.26
		SO ₂	2.09	8.30
		PM	8.13	32.37
		PM ₁₀	8.13	32.37
		PM _{2.5}	8.13	32.37
		NH ₃	4.63	18.44

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MEOHMT	Cooling Tower	VOC	0.83	3.64
		PM	0.83	3.62
		PM ₁₀	0.51	2.25
		PM _{2.5}	0.17	0.76
MEOHMSS	Methanol MSS	VOC	194.31	0.44
MEOHENG	Methanol Engine	VOC	0.88	0.04
		NO _x	0.77	0.04
		CO	0.88	0.04
		PM	0.04	0.01
55T9801ST or 55T9801TEMP	Methanol Scrubber of Temporary Methanol Scrubber	VOC	12.91	3.47

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 CO - carbon monoxide
 NH₃ - Ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: September 16, 2013



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

DEC 12 2013

Mr. Paresh Bhakta
Site Director
Celanese Ltd., Clear Lake Plant
P.O. Box 58190
Houston, TX 77528-8190

Dear Mr. Bhakta:

In accordance with the Clean Air Act (CAA), as amended (42 U.S.C. 7401 et seq.), the U.S. Environmental Protection Agency has reviewed your application for a CAA Prevention of Significant Deterioration (PSD) for Greenhouse Gas Emissions permit authorizing the construction of a new methanol manufacturing unit at the existing Clear Lake Plant.

The EPA issued and published requests for public comment regarding EPA's proposed action on the above application on June 23, 2013. During the comment period, EPA received one written comment letter from Sierra Club on July 23, 2013. After consideration of the pertinent Federal statutes, regulations, and additional material relevant to the application contained in our Administrative Record, the EPA hereby issues the enclosed PSD Permit for the facility described above. The final permit, Responses to Public Comments, and other key documents relevant to the final PSD permit are also available online at <http://yosemite.epa.gov/r6/Apermit.nsf/AirP>.

In accordance with 40 CFR §124.15(b), this PSD Permit becomes effective thirty (30) days from the date of service of notice of this permit decision unless a petition for review is properly and timely filed with the EAB. In the event that a petition for review is filed with the EAB, construction of the facility is not authorized under this PSD permit until resolution of the EAB petition(s). If you have any questions regarding this matter, please contact Mr. Jeff Robinson, Chief, Air Permits Section at (214) 665-6435.

Sincerely,

A handwritten signature in blue ink, appearing to read "Wren Stenger", is written over the typed name.

Wren Stenger

Director
Multimedia Planning and
Permitting Division

Enclosures:

U.S. Mail: Aimee Wilson
Air Permits Section (6PD-R)
U.S. EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202
Phone: (214) 665-7596

The contact information above may also be used to request copies of other portions of the administrative record for this action.

Within 30 days after the service of notice announcing this final permit decision, any person who filed comments on the proposed permit for the Project or participated in any of the public hearings for the Project may petition EPA's Environmental Appeals Board (EAB) to review any condition of the final permit. Persons who did not file comments or participate in the public hearings may petition for administrative review only to the extent of changes from the proposed to the final permit decision. The petition must include a statement of the reason(s) for requesting review by the EAB, including a demonstration that any issues being raised were raised during the public comment period to the extent required by the regulations at 40 CFR Part 124 and when appropriate, a showing that the conditions in question are based on 1) a finding of fact or conclusion of law which is erroneous, or 2) an exercise of discretion or an important policy consideration which the EAB should, in its discretion, review. Please see 40 CFR 124.19 and visit <http://www.epa.gov/eab/> for important information regarding the procedures for appeal of a PSD permit decision to the EAB.

EPA's PSD permit for the Project shall take effect thirty (30) days from the date of service of notice of this permit decision unless a petition for review is properly and timely filed with the EAB. In the event that a petition for review is filed with the EAB, construction of the facility is not authorized under this PSD permit until resolution of the EAB petition(s).

Please bring the foregoing notice to the attention of all persons who would be interested in this matter.

*** END OF ANNOUNCEMENT ***
Issued December 12, 2013

* * * PUBLIC NOTICE * * *

**Celanese, Ltd.
Clear Lake Plant**

**ANNOUNCEMENT OF FINAL DECISION TO ISSUE A CLEAN AIR ACT PREVENTION
OF SIGNIFICANT DETERIORATION PERMIT THAT REGULATES THE EMISSION OF
AIR POLLUTANTS
PERMIT APPLICATION NO. PSD-TX-1296-GHG**

On June 23, 2013, the United States Environmental Protection Agency, Region 6 (EPA) provided notice of, and requested public comment on, EPA's proposal to issue a Prevention of Significant Deterioration (PSD) major permit authorizing the construction of a new methanol manufacturing unit (Project) at the existing Clear Lake Plant located in Pasadena, Texas. EPA's final decision grants conditional approval, in accordance with the PSD regulations (40 CFR 52.21), to Celanese to construct and operate a new methanol manufacturing unit consisting of one reformer furnace, flare, emergency generator engine, cooling tower, and fugitive emission sources.

The mailing address for Celanese is 222 W. Las Colinas Blvd., Suite 900, Irving, TX 75039. The location for the Project is 9502 Bayport Blvd., Pasadena, TX 77507.

During the public comment period, EPA received written comments regarding its proposed PSD permitting action for the Project. EPA has carefully reviewed each of the comments submitted and, after consideration of the expressed views of all commenters, the pertinent Federal statutes and regulations, and additional material relevant to the application and contained in our Administrative Record, EPA has made a decision in accordance with 40 CFR 52.21 to issue a final PSD permit to Celanese.

Key portions of the Administrative Record for this decision (including the final permit, all public comments, EPA's responses to the public comments, and additional supporting information) are available through a link at our website, <http://yosemite.epa.gov/r6/Apermit.nsf/AirP>.

Hard copies of the final permit and EPA's responses to the public comments, and the Administrative Record for this action, may also be viewed in person, Monday through Friday from 9:00 AM to 4:00 PM, at the EPA Region 6 address below. Due to building security procedures, please call Aimee Wilson at (214) 665-7596 to arrange a visit at least 24 hours in advance. Hard copies of the final permit and EPA's responses to the public comments are available upon request at the following:

E-mail: Wilson.Aimee@epa.gov

**PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
FOR GREENHOUSE GAS EMISSIONS
ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21**

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 6

PSD PERMIT NUMBER: PSD-TX-1296-GHG

PERMITTEE: Celanese, Ltd.
222 W. Las Colinas Blvd., Suite 900
Irving, TX 75039

FACILITY NAME: Celanese, Ltd.
Clear Lake Plant

FACILITY LOCATION: 9502 Bayport Blvd.
Pasadena, TX 77507

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. Seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, and the Federal Implementation Plan at 40 CFR § 52.2305 (effective May 1, 2011 and published at 76 FR 25178), the U.S. Environmental Protection Agency, Region 6 is issuing a *Prevention of Significant Deterioration* (PSD) permit to Celanese, Ltd. for Greenhouse Gas (GHG) emissions. The Permit applies to the construction of a new methanol manufacturing unit at the existing Clear Lake Plant located in Pasadena, Texas.

Celanese is authorized to construct equipment at the Clear Lake Plant, as part of the proposed project as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD permit. Failure to comply with any condition or terms set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act (CAA). This PSD Permit does not relieve Celanese of the responsibility to comply with any other applicable provisions of the CAA (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 72 through 75, and 98) or other federal and state requirements (including the state PSD program that remains under approval at 40 CFR § 52.2303).

In accordance with 40 CFR §124.15(b), this PSD Permit becomes effective 30 days after the service of notice of this final decision unless review is requested on the permit pursuant to 40 CFR §124.19.


Wren Stenger, Director
Multimedia Planning and Permitting Division

12/12/13
Date

Celanese Ltd. (PSD-TX-1296-GHG)
Prevention of Significant Deterioration Permit
For Greenhouse Gas Emissions
Permit Conditions

PROJECT DESCRIPTION

With this permit application, Celanese is proposing to construct a new methanol (MeOH) manufacturing unit at the Clear Lake Plant. Celanese owns and operates multiple chemical manufacturing units at the Clear Lake Plant. Currently, methanol is one of the feedstocks imported to the facility. To provide improved reliability of their MeOH supply and reduce transportation expenses, Celanese proposes to manufacture MeOH onsite with the construction of a new MeOH manufacturing unit. The design capacity of the new Methanol plant is 1,433,000 tons per year of methanol.

To produce methanol, natural gas feedstock is compressed, preheated, and pretreated to remove sulfur compounds. The treated feed is then mixed with steam before being sent to the reformer. The reformer consists of a large number of catalyst-filled tubes suspended in the radiant section of a process heater. Process stream containing light hydrocarbons and steam flows into the tubes where it is heated to reaction temperature to produce the synthesis gas.

Steam required to operate the unit is produced from heat recovery in the secondary reformer and heat recovery from the converters. The synthesis gas is cooled, compressed, reheated, and sent to the conversion reactor. The converter effluent is cooled with the crude methanol, separated as a liquid phase, and sent to product purification. The off-gas is recycled to the methanol converter. The purge gas is used as fuel in the reformer fuel gas.

The crude methanol is sent to a three-column distillation train. Light ends are taken overhead in the first column and combined with the purge stream from the converter loop. About 60% of the finished methanol is taken overhead in the second column. The residue from the second column feeds a third column. The remainder of the finished methanol is taken overhead in the third column. A side stream from the third column is recycled to the saturation system. The process water stream from the bottom of the third column is also recycled to the saturation system. Finished methanol will be sent to the storage area.

A flare (EPN: MEOHFLR) will be available to control emissions as appropriate from Maintenance, Start-up, or Shutdown (MSS) activities or emergency vents. MSS GHG emissions not able to be controlled by the flare will be emitted to atmosphere (EPN: MEOHMSS). A back-up diesel emergency generator (EPN: MEOHENG) will be located in the Methanol Unit and will be used for back-up power. Piping components from the process equipment described above will also be a source of GHG emissions (EPN: MEOHFUG).

EQUIPMENT LIST

The following devices are subject to this GHG PSD permit.

FIN	EPN	Description
REFORM	REFORM	Reformer Furnace (Combustion Unit). The furnace has a maximum design heat input rate of 1,255 MMBtu/hr, and will be equipped with a Selective Catalytic Reduction (SCR) system and low NOx burners.
MEOHFLR	MEOHFLR	Methanol (MeOH) MSS Flare (Combustion Unit).
MEOHMSS	MEOHMSS	MSS Emissions
MEOHFUG	MEOHFUG	Process Fugitives
MEOHENG	MEOHENG	Emergency Generator (Combustion Unit). The generator shall be no larger than 350 KW.
MEOHMT	MEOHMT	Cooling Tower

I. GENERAL PERMIT CONDITIONS

A. PERMIT EXPIRATION

As provided in 40 CFR § 52.21(r), this PSD Permit shall become invalid if construction:

1. is not commenced (as defined in 40 CFR § 52.21(b)(9)) within 18 months after the approval takes effect; or
2. is discontinued for a period of 18 months or more; or
3. is not completed within a reasonable time.

Pursuant to 40 CFR § 52.21(r), EPA may extend the 18-month period upon a written satisfactory showing that an extension is justified.

B. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region 6 in writing or by electronic mail of the:

1. date construction is commenced, postmarked within 30 days of such date;
2. actual date of initial startup, as defined in 40 CFR § 60.2, postmarked within 15 days of such date; and
3. date upon which initial performance tests will commence, in accordance with the provisions of Section V, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition V.B.

C. FACILITY OPERATION

At all times, including periods of startup, shutdown, and maintenance, Permittee shall, to the extent practicable, maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not limited to, monitoring results, review of operating maintenance procedures and inspection of the facility.

D. MALFUNCTION REPORTING

1. Permittee shall notify EPA by mail within 48 hours following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in GHG emissions above the allowable emission limits stated in Section II and III of this permit.
2. Within 10 days of the restoration of normal operations after any failure described in I.D.1., Permittee shall provide a written supplement to the initial notification that includes a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section II and III, and the methods utilized to mitigate emissions and restore normal operations.
3. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

E. RIGHT OF ENTRY

EPA authorized representatives, upon the presentation of credentials, shall be permitted:

1. to enter the premises where the facility is located or where any records are required to be kept under the terms and conditions of this PSD Permit;
2. during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;
3. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and,
4. to sample materials and emissions from the source(s).

F. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the facilities to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and operator of the existence of the PSD Permit and its conditions by letter; a copy of the letter shall be forwarded to EPA Region 6 within thirty days of the letter signature.

G. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

H. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD Permit, the application on which this permit is based, and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state, and local environmental laws and regulations, including the Clean Air Act.

I. ACRONYMS AND ABBREVIATIONS

AVO	Auditory, Visual, and Olfactory
BACT	Best Available Control Technology
C ₃ +	Hydrocarbon with Three or More Carbon Atoms
CAA	Clean Air Act
CC	Carbon Content
CCS	Carbon Capture and Sequestration
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CH ₄	Methane
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry Standard Cubic Foot
EF	Emission Factor
EPN	Emission Point Number
FIN	Facility Identification Number
FR	Federal Register
GCV	Gross Calorific Value
GHG	Greenhouse Gas
gr	Grains
GWP	Global Warming Potential
HGB	Houston, Galveston, Brazoria Area
HHV	High Heating Value
HPIB	Highly Purified Isobutylene
hr	Hour
HRSG	Heat Recovery Steam Generating
LAER	Lowest Achievable Emission Rate
lb	Pound
LDAR	Leak Detection and Repair
MeOH	Methanol
MMBtu	Million British Thermal Units
MSS	Maintenance, Start-up, and Shutdown
NNSR	Nonattainment New Source Review
N ₂ O	Nitrous Oxides
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance and/or Quality Control
SCFH	Standard Cubic Feet per Hour
SCR	Selective Catalytic Reduction
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TOC	Total Organic Carbon
TPY	Tons per Year
USC	United States Code
VOC	Volatile Organic Compound

II. Annual Emission Limits

Annual emissions, in tons per year (TPY) on a 12-month, rolling average, shall not exceed the following:

Table 1. Annual Emission Limits

FIN	EPN	Description	GHG Mass Basis		TPY CO ₂ e ^{2,3}	BACT Requirements
				TPY ²		
REFORM	REFORM	Reformer Furnace	CO ₂	532,787	533,334	Furnace Gas Exhaust Temperature ≤ 350 °F. 30 MMBtu (HHV)/ ton methanol produced. See permit condition III.A.1.
			CH ₄	11		
			N ₂ O	1.1		
MEOHFLR	MEOHFLR	Methanol Flare	CO ₂	1,092	1,366	Flare will meet the requirements of 40 CFR 60.18. See permit condition III.A.2.
			CH ₄	12		
			N ₂ O	0.07		
MEOHMSS	MEOHMSS	Methanol MSS	CH ₄	No Numerical Limit Established ⁴	No Numerical Limit Established ⁴	Good Operational Practices. See permit conditions III.A.6.
MEOHFUG	MEOHFUG	Fugitives	CO ₂	No Numerical Limit Established ⁵	No Numerical Limit Established ⁵	Implementation of LDAR Program. See permit condition III.A.3.
			CH ₄	No Numerical Limit Established ⁵		
MEOHENG	MEOHENG	Emergency Generator Engine	CO ₂	33.3 ⁶	33.3 ⁶	Good combustion practices, non-emergency operation limited to 100 hrs/year. See permit condition III.A.4.
			CH ₄	No Numerical Limit Established ⁷		
			N ₂ O	No Numerical Limit Established ⁷		
MEOHMT	MEOHMT	Cooling Tower	CH ₄	No Numerical Limit Established ⁸	No Numerical Limit Established ⁸	Leak detection/quarterly monitoring of cooling water; heat exchanger repair. See permit condition III.A.5.
Totals⁹			CO ₂	533,927	CO₂e 535,218	
			CH ₄	46		
			N ₂ O	1.1		

1. Compliance with the annual emission limits (tons per year) is based on a 12-month rolling average basis
2. The TPY emission limits specified in this table are not to be exceeded for this facility and include emissions from the facility during all operations and include MSS activities.
3. Global Warming Potentials (GWP): CH₄ = 21, N₂O = 310
4. GHG emissions from MSS activities that cannot be controlled by a flare are represented by EPN MEOHMSS. These emissions are from the venting of equipment and the isolation of pipe sections for the purposes of maintenance, startup, and shutdown operations. These emissions are estimated to be no more than 0.9 TPY of

CH₄ and 19.4 TPY of CO₂e. The emission limit will be a design/work practice standard as specified in the permit.

5. Fugitive process emissions from EPN MEOHFUG are estimated to be 3 TPY CO₂, 10 TPY of CH₄ and 213 TPY CO₂e. The emission limit will be a design/work practice standard as specified in the permit.
6. The limits associated with MEOHENG are for non-emergency use of the engine.
7. All values indicated as "No Numerical Limit Established" are less than 0.01 TPY with appropriate rounding. The emission limit will be a design/work practice standard as specified in the permit.
8. Cooling Tower emissions from EPN MEOHMT are estimated to be 12 TPY of CH₄ and 252 TPY CO₂e. The emission limit will be a design/work practice standard as specified in the permit.
9. The total emissions for CH₄ and CO₂e include the PTE for process fugitive emissions, uncontrolled MSS, and cooling tower emissions of CO₂ and CH₄. These totals are given for informational purposes only and do not constitute emission limits.

III. SPECIAL PERMIT CONDITIONS

A. Emission Unit Work Practice Standards, Operational Requirements, and Monitoring

1. Reformer Furnace (REFORM)

- a. The reformer furnace shall combust pipeline quality natural gas and/or plant produced high hydrogen fuel gas (process gas).
- b. The reformer furnace shall have fuel metering for each fuel, and Permittee shall:
 - i. Measure and record the fuel flow rate using an operational non-resettable elapsed flow meter or by recording the flow rate data in an electronic format with individual flow measurements being taken no less frequently than once every 15 minutes. Electronic data may be reduced to hourly averages for recordkeeping purposes.
 - ii. Record the total fuel combusted for each fuel monthly.
 - iii. Analyze process gas composition in accordance with 40 CFR § 98.34(b)(3)(ii)(E).
 - iv. The fuel gross calorific value (GCV) [high heat value (HHV)], carbon content and, if applicable, molecular weight, shall be determined, at a minimum, monthly by the procedures contained in 40 CFR § 98.34(b)(3). Records of the fuel GCV shall be maintained for a minimum period of five years. Upon request, Permittee shall provide a sample and/or analysis of the fuel that is fired in any unit covered by this permit at the time of the request, or shall allow a sample to be taken by EPA for analysis.
 - v. Pipeline Quality Natural Gas shall be exempt from this requirement (III.A.1.iii.) provided Permittee receives and maintains quarterly records of the vendor's analysis, and the data is of sufficient quality to yield further analysis as required above.
- c. Permittee shall calibrate and perform preventative maintenance checks of the fuel gas flow meters and document at the minimum frequency established per the manufacturer's recommendation, or at the interval specified per 40 CFR § 98.34(b)(1)(ii).
- d. Permittee shall install, operate, and maintain an O₂ analyzer on the furnace flue gas at a location downstream of the radiant sections of the furnace.
- e. The oxygen analyzer shall continuously monitor and record the excess oxygen concentration in the combustion gases. The monitoring data shall be reduced to hourly average concentrations at least once every day using a minimum of four equally spaced data points over each one-hour period.

- f. Permittee shall perform preventative maintenance check of the oxygen analyzer and document quarterly.
- g. A relative accuracy test audit (RATA) is required once every four quarters in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.1.
- h. The oxygen analyzers shall be quality-assured at least quarterly using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2.
- i. The Permittee will validate the oxygen analyzer with zero and span gas at least weekly to maintain 1% accuracy based on full scale.
- j. Excess oxygen shall be controlled to less than 3% when the operating load is 75% or greater to ensure efficiency on a 12-month rolling average basis.
- k. All analyzers identified in this section IV.A.1. shall achieve 95% on-stream time or greater when the reformer is operational.
- l. Permittee shall utilize insulation materials where feasible to reduce heat loss.
- m. The reformer furnace shall not exceed the one-hour maximum firing rate of 1,255 MMBtu/hr.
- n. The one-hour maximum firing rates shall be determined daily to demonstrate compliance with the firing rate condition in III.A.1.m.
- o. Permittee shall continuously monitor and record the furnace gas exhaust temperature hourly and limit the temperature to less than or equal to 350 °F on a 12-month rolling average basis. This stack temperature is for normal operations and does not include commissioning, startup, and shutdown.
- p. The furnace will be continuously monitored for exhaust temperature and stack oxygen. Steam exported by the unit shall be continuously monitored. The energy efficiency of the process will be calculated daily by determining the natural gas fed as fuel and/or raw material to the reformer and composition in combination with HHV for the fuel gas components plus the HHV of the exported steam then dividing by the production of methanol measured in tons.
- q. The Permittee shall maintain a minimum overall efficiency of 30 MMBtu (HHV)/ton methanol produced on a 12-month rolling average basis, calculated monthly, for the furnace (REFORM) including periods of start-up, shutdown, and maintenance.
- r. The furnace shall be tuned annually consisting of a flame pattern inspection and adjustment for CO concentration.
- s. Permittee shall calculate, on a monthly basis, the amount of CO₂ emitted from combustion of process gas in tons/yr using equation C-5 in 40 CFR Part 98 Subpart C, converted to short tons. CO₂ emitted from the combustion of natural gas in tons/yr shall be calculated using equation C-2a in 40 CFR Part 98 Subpart C, converted to short tons. Compliance shall be based on a 12-month rolling basis to be updated by the last day of the following month.
- t. Permittee shall calculate the CH₄ and N₂O emissions on a 12-month rolling basis to be updated by the last day of the following month. Permittee shall determine compliance with the CH₄ and N₂O emissions limits contained in this section using the

default CH₄ and N₂O emission factors contained in Table C-2 and equation C-8 (for process gas) and C-9a (for natural gas) of 40 CFR Part 98 and the measured HHV (for process gas), converted to short tons.

- u. Permittee shall calculate the CO₂e emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, as published on October 30, 2009 (74 FR 56395). The record shall be updated by the last day of the following month.

2. Flare (MEOHFLR)

- a. The flare shall be an intermittent use flare that will combust waste gases from the methanol production unit.
- b. The flare shall be designed to achieve a minimum destruction and removal efficiency (DRE) of 99% for CH₄ based on flow rate and gas composition measurements.
- c. The only gases that may flow continuously to the flare are: pilot gas, sweep gas (natural gas or nitrogen), and process safety valve fugitives.
- d. The flare shall be operated in accordance with 40 CFR § 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. An infrared monitor is considered equivalent to a thermocouple for pilot flame monitoring purposes.
- e. The flare is non-assisted.
- f. The waste gas from MSS activities from the methanol production unit is mixed with supplemental natural gas, upstream of a mass flow meter located in the flare header.
- g. Flare header flow meter will measure flow at least once each 15 minutes. The flow meter shall be calibrated at least biannually.
- h. The flare shall be equipped with a gas composition analyzer. The analyzer shall measure the gas composition at least once per hour and be calibrated monthly.
- i. The flow meter and analyzers used for flare compliance shall be operational at least 95% of the time when waste gases are directed to the flare for control.
- j. Permittee must record the time, date, HHV in MMBtu/hr and duration of each MSS event. The records must include hourly CH₄ emission levels as measured by the in-line gas analyzer (Gas chromatograph or equivalent with volumetric stack gas flowrate) and the calculations based on the actual heat input for the CO₂, N₂O, and CH₄ emissions during each MSS event. These records must be kept for five years following the date of each event.
- k. CO₂ emissions are calculated using equation Y-1 found in 40 CFR § 98.253(b)(1)(ii)(A). CH₄ and N₂O emissions are calculated using equations Y-4 and Y-5 as found in 40 CFR Part 98 Subpart Y.
- l. Compliance with the annual emission limit shall be determined on a 12-month rolling basis.

3. Process Fugitives (EFUGMEOH)

- a. The Permittee shall implement the TCEQ 28LAER leak detection and repair (LDAR) program for fugitive emissions of methane.
- b. The Permittee shall implement an as-observed AVO program to monitor for fugitive emissions between instrumented monitoring as required in III.A.3.a above.
- c. The Permittee shall use high quality components and materials of construction that is compatible with the service in which they are employed.

4. Emergency Generator Engine (MEOHENG)

- a. The emergency generator engine purchased will be certified to meet the applicable emission standards of 40 CFR § 60.4205(b).
- b. The Permittee shall implement good combustion practices, including preventive maintenance per manufacturer's recommendations.
- c. Non-emergency use of the engine shall be limited to 100 hours per year.
- d. The Permittee shall maintain records of engine maintenance/tune-ups, as well as run times.
- e. On or after initial startup, the Permittee shall not discharge or cause the discharge of emissions in excess of 33.3 tons CO₂e/year from non-emergency use, based on a 12-month rolling average.
- f. The Permittee shall demonstrate compliance with the 12-month rolling average emission limit by using the calculations at 40 CFR Part 98, Subpart C.

5. Cooling Tower (MEOHMT)

- a. The Permittee shall implement a leak detection program for the cooling tower consistent with 40 CFR Part 63 Subpart F. Total Organic Carbon (TOC) will be substituted for HAP to determine if a GHG leak is present. TOC will be measured utilizing Method 5310 from *Standard Methods for the Examination of Water and Wastewater*. It will be assumed that any hydrocarbon detected utilizing this method will be CH₄.
- b. Leak detection monitoring shall occur monthly for the first 6 months of operation, then on a quarterly basis thereafter (40 CFR § 63.104(b)).
- c. The Permittee shall maintain records of cooling tower monitoring and corrective actions taken consistent with 40 CFR § 63.104(f).

6. Maintenance, Startup, and Shutdown (EPN: MEOHMSS)

- a. The Permittee shall depressure sections of pipe and equipment to the flare or other parts of the process prior to performing MSS activities.

- b. MSS emissions that cannot be controlled by the flare are vented to the atmosphere.
- c. These MSS emissions are generated from the isolation of pipe sections and venting of equipment for MSS activities. The volume of methane vented to atmosphere from these activities shall not exceed more than 15,000 ft³ of gases on a 12-month rolling basis.
- d. Celanese will plan maintenance activities in a manner to minimize the venting of emissions to the atmosphere.
- e. Records of MSS activities shall be maintained to include the date, time, and estimated volume of each MSS event.

B. Continuous Emissions Monitoring Systems (CEMS)

- 1. As an alternative to Special Conditions III.A.1.n. through III.A.1.p. Permittee may install a CO₂ CEMS and volumetric stack gas flow monitoring system with an automated data acquisition and handling system for measuring and recording CO₂ emissions discharged to the atmosphere, and use these values to show compliance with the annual emission limit in Table 1.
- 2. Permittee shall ensure that all required CO₂ monitoring system/equipment are installed and all certification tests are completed on or before the earlier of 90 unit operating days or 180 calendar days after the date the unit commences operation.
- 3. Permittee shall ensure compliance with the specifications and test procedures for CO₂ emission monitoring system at stationary sources, 40 CFR Part 75, or 40 CFR Part 60, Appendix B, Performance Specification numbers 1 through 9, as applicable.

IV. Recordkeeping and Reporting

A. Records

- 1. In order to demonstrate compliance with the GHG emission limits in Table 1, the Permittee will monitor the following parameters and summarize the data on a calendar month basis.
 - a. Operating hours for all air emission sources;
 - b. Records of the fuel consumed by each source (except MEOHENG and flare pilot gas);
 - c. The fuel usage for all combustion sources, using continuous fuel flow monitors (a group of equipment can utilize a common fuel flow meter, as long as actual fuel usage is allocated to the individual equipment based upon actual operating hours and maximum firing rate); and
 - d. Semi-annual fuel sampling for natural gas, daily fuel sampling of plant fuel gas, or other frequencies as allowed by 40 CFR § 98.34(b)(3).

2. Permittee shall maintain a file of all records, data, measurements, reports, and documents related to the operation of the facility, including, but not limited to, the following: all records or reports pertaining to significant maintenance performed on any system or device at the facility; duration of startup, shutdown; the initial startup period for the emission units; pollution control units; malfunctions; all records relating to performance tests, calibrations, checks, and monitoring of combustion equipment; duration of an inoperative monitoring device and emission units with the required corresponding emission data; and all other information required by this permit recorded in a permanent form suitable for inspection. The file must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.
3. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator or authorized representative, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:
 - a. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;
 - b. Applicable time and date of each period during which the monitoring equipment was inoperative (monitoring down-time);
 - c. A statement in the report of a negative declaration; that is; a statement when no excess emissions occurred or when the monitoring equipment has not been inoperative, repaired or adjusted;
 - d. Any failure to conduct any required source testing, monitoring, or other compliance activities; and
 - e. Any violation of limitations on operation.
4. Excess emissions shall be defined as any period in which the facility emissions exceed a maximum emission limit set forth in this permit, or a malfunction occurs causing an emissions exceedance.
5. Excess emissions indicated by GHG emission performance testing or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.
6. Instruments and monitoring systems required by this PSD permit shall have a 95% on-stream time on an annual basis.
7. All records required by this PSD Permit shall be retained for not less than 5 years following the date of such measurements, maintenance, and reporting.
8. Continuously means individual measurement no less frequent than once every 15 minutes. Electronic data may be reduced to hourly averages for recordkeeping purposes.

V. Initial Performance Testing Requirements:

- A.** The Permittee shall perform stack sampling and other testing to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the stack of the Reformer Furnace (REFORM) to determine the initial compliance with the CO₂ emission limits established in this permit. Sampling shall be conducted in accordance with 40 CFR § 60.8 and EPA Method 3a or 3b for the concentration of CO₂.
1. Multiply the CO₂ hourly average emission rate determined under maximum operating test conditions by 8,760 hours.
 2. If the above calculated CO₂ emission total does not exceed the tons per year (TPY) specified on Table 1, no compliance strategy needs to be developed.
 3. If the above calculated CO₂ emission total exceeds the tons per year (TPY) specified in Table 1, the facility shall:
 - a. Document the potential to exceed in the test report; and
 - b. Explain within the report how the facility will assure compliance with the CO₂ emission limit listed in Table 1.
- B.** No later than 180 days after initial start-up, or restart after modification of the facility, performance test(s) must be conducted and a written report of the performance testing results furnished to the EPA with 60 days after the testing is completed. During subsequent operations, stack sampling shall be performed within 120 days if current production rates exceed the production rate during stack testing by 10 percent or greater, additional sampling may be required by TCEQ or EPA.
- C.** Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.
- D.** Performance tests must be conducted under such conditions to ensure representative performance of the affected facility. The owner or operator must make available to the EPA such records as may be necessary to determine the conditions of the performance tests.
- E.** The owner or operator must provide the EPA at least 30 days' prior notice of any performance test, except as specified under other subparts, to afford the EPA the opportunity to have an observer present and/or to attend a pre-test meeting. If there is a delay in the original test date, the facility must provide at least 7 days prior notice of the rescheduled date of the performance test.
- F.** The owner or operator shall provide, or cause to be provided, performance testing facilities as follows:
1. Sampling ports adequate for test methods applicable to this facility,

2. Safe sampling platform(s),
 3. Safe access to sampling platform(s), and
 4. Utilities for sampling and testing equipment.
- G.** Unless otherwise specified, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply.
- H.** Emissions testing, as outlined above, shall be performed every five years, plus or minus 6 months, of when the previous performance test was performed, or within 180 days after the issuance of a permit renewal, whichever comes later to verify continued performance at permitted emission limits.

VI. Agency Notifications

Permittee shall submit GHG permit applications, permit amendments, and other applicable permit information to:

Multimedia Planning and Permitting Division
EPA Region 6
1445 Ross Avenue (6 PD-R)
Dallas, TX 75202
Email: Group R6AirPermits@EPA.gov

Permittee shall submit a copy of all compliance and enforcement correspondence as required by this Approval to Construct to:

Compliance Assurance and Enforcement Division
EPA Region 6
1445 Ross Avenue (6EN)
Dallas, TX 75202